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STIC Database Tracking Number: 209839

TO: Rei-Tsang Shiao
Location: REM-5A10/5C18
Art Unit: 1626
Thursday, January 04, 2007
Case Serial Number: 10/500156

From: Saloni Sharma
Location: Biotech-Chem Library
REM-1A64
Phone: (571)272-8601

saloni.sharma@uspto.gov

Search Notes

Examiner Shiao,

See attached results.

If you have any questions about this search feel free to contact me at any time.

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Saloni Sharma
Technical Information Specialist
STIC Biotech/Chem Library
(571)272-8601

12-526

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Robert (Ricky) Shiao Examiner #: 79521 Date: 12/08/06

Art Unit: 1626 Phone Number: 2-0707 Serial Number: 10/500,156 2004

Location (Bldg/Room#): REM (Mailbox #): 5A10/ Results Format Preferred (circle): PAPER DISK

5C18 PCT/JP02/13792

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To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Beta-amyloid protein

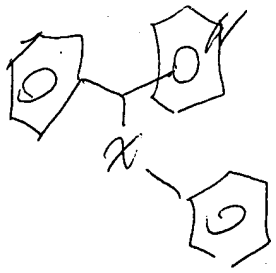
Inventors (please provide full names): Yasutsuchi et al.

Earliest Priority Date: _____

Search Topic:
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

1. Such cpds and their process of making and methods of use (i.e. Alzheimer's disease)
see claim 18



i. X is S, SO or SO_2

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STAFF USE ONLY

Searcher: Valerie Sherman

Searcher Phone #: _____

Searcher Location: _____

Date Searcher Picked Up: 11/4/07

Date Completed: 11/4/07

Searcher Prep & Review Time: 20

Online Time: 40

Type of Search

_____ NA Sequence (#)

_____ AA Sequence (#)

_____ Structure (#)

_____ Bibliographic

_____ Litigation

_____ Fulltext

_____ Other

Vendors and cost where applicable

✓ STN _____ Dialog

_____ Questel/Orbit _____ Lexis/Nexis

_____ Westlaw _____ WWW/Internet

___ In-house sequence systems

___ Commercial ___ Oligomer ___ Score/Length

___ Interference ___ SPDI ___ Encode/Transl

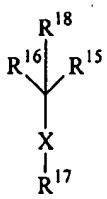
_____ Other (specify)

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-17 (Canceled).

Claim 18 (Previously Presented): A compound represented by the following formula (3):



(3)

(wherein, R^{15} represents a heterocyclic group which may have a substituent, R^{16} represents a cyclic hydrocarbon group which may have a substituent or a heterocyclic group which may have a substituent, R^{17} represents a cyclic hydrocarbon group which may have a substituent or a heterocyclic group which may have a substituent, R^{18} represents a hydrogen atom or a C_{1-6} alkyl group and X represents -S-, -SO- or -SO_2-); or N-oxide or S-oxide of the compound; salt thereof; or solvate of the above-described compound.

Claim 19 (Previously Presented): The compound of Claim 18, wherein X represents -SO- or -SO_2-; or N-oxide or S-oxide of the compound; salt thereof; or solvate of the above-described compound.

Claim 20 (Previously Presented): The compound of Claim 18, wherein X represents -SO_2-; or N-oxide or S-oxide of the compound; salt thereof; or solvate of the above-described compound.

Claim 21 (Previously Presented): The compound of Claim 18, wherein the heterocyclic group represented by R^{15}, R^{16} or R^{17} is a 3- to 7-membered saturated or 4- to 7-membered unsaturated monocylic heterocyclic group having from 1 to 4 atoms selected from nitrogen atom, oxygen atom and sulfur atom, or a 7- to 14-membered polycyclic heterocyclic group having from 1 to 4 atoms selected from nitrogen atom, oxygen atom and sulfur atom; or N-oxide or S-oxide of the compound; salt thereof; or solvate of the above-described compound.

Claim 22 (Previously Presented): The compound of Claim 18, wherein the cyclic hydrocarbon group represented by R^{16} or R^{17} is a cycloalkyl group having from 3 to 7 carbon atoms, cycloalkenyl group having from 4 to 7 carbon atoms, monocylic or polycyclic aromatic hydrocarbon group having from 6 to 14 carbon atoms, spirohydrocarbon group having from 7 to 11 carbon atoms, crosslinked cyclic hydrocarbon group having from 7 to 10 carbon atoms or condensed polycyclic hydrocarbon group having from 8 to 14 carbon atoms; or N-oxide or S-oxide of the compound; salt thereof; or solvate of the above-described compound.

Claim 23 (Previously Presented): The compound of any one of Claim 18, wherein the substituent for the cyclic hydrocarbon group or heterocyclic group represented by R^{15}, R^{16}, or R^{17} is a group $-Q^{201}-Q^{202}-Q^{203}-Q^{204}-Q^{205}-Q^{206}-Q^{207}$, in which Q^{201} represents a single bond, an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 2 to 6 carbon atoms or a heterocyclic group; Q^{202} represents a single bond, -O-, -NH-, -CH=-N-, -C(alkyl)=N-, -N(alkyl)- or -S-; Q^{203} represents a single bond, -CO-, -CS-, -SO-, $-SO_2-$ or -CONH-; Q^{204} represents a single bond, an alkyl group from 1 to 6 carbon atoms, an alkenyl group having

from 2 to 6 carbon atoms, a cycloalkyl group, a cycloalkenyl group, an aromatic hydrocarbon group or a heterocyclic group; Q^{205} represents a single bond, -NH- or -N(alkyl)-; Q^{206} represents a single bond, -O-, -CO-, -CS-, -SO_2-, -SO- or -S-; and Q^{207} represents a hydrogen atom, a halogen atom, a hydroxy group, an oxo group, a C_{1-6} alkyl group, a C_{2-6} alkenyl group, a C_{3-8} cycloalkyl group, a C_{1-6} alkoxy group, a C_{2-6} alkenyloxy group, an azide group, a cyano group, an amino group, a C_{1-6} alkylamino group, a di(C_{1-6} alkyl)amino group, a C_{2-6} alkanoylamino group, a di(C_{2-6} alkanoy)amino group, a carboxyamino group, a C_{1-6} alkoxycarbonylamino group, a di(C_{1-6} alkoxy)carbonylamino group, a heterocyclic group, an aromatic hydrocarbon group, a cycloalkenyl group, a heterocyclic oxy group, or an aromatic hydrocarbon-oxy group (wherein, the alkyl group having from 1 to 6 carbon atoms, alkenyl group having from 2 to 6 carbon atoms, cycloalkyl group, cycloalkenyl group, heterocyclic group, heterocyclic-oxy group, aromatic hydrocarbon group or aromatic hydrocarbon-oxy group may be substituted with 1 to 3 substituents selected from halogen atoms, C_{1-6} alkyl groups, C_{1-6} alkoxy groups, C_{2-6} alkenyl groups, carboxyamino C_{1-6} alkyl groups, C_{1-6} alkoxycarbonylamino C_{1-6} alkyl groups, formyl group, C_{2-6} alkanoyl groups, oxo group, nitro group, cyano group, azide group, amidino group, C_{2-6} alkenyloxy groups, hydroxy group, carboxyl group, C_{7-16} aralkyl groups, thioxo group, C_{2-7} alkanoyl groups, C_{2-7} thioalkanoyl groups, thioformyl group, amino group, C_{1-6} alkylamino groups, di(C_{1-6} alkyl)amino groups, C_{1-6} alkoxycarbonyl groups, carbamoyl group, C_{1-6} alkylcarbamoyl groups, di(C_{1-6} alkyl)carbamoyl groups, thiocarbamoyl group, C_{1-6} alkylthiocarbamoyl groups, di(C_{1-6} alkyl)thiocarbamoyl groups, C_{1-6} alkoxycarbamoylamino groups,

C_{1-6} alkoxycarbamoyl(C_{1-6} alkyl)amino groups, C_{2-7} alkanoylamino groups, C_{2-7} alkanoyl (C_{1-6} alkyl)amino groups, thio C_{2-7} alkanoylamino groups, thio C_{2-7} alkanoyl (C_{1-6} alkyl)amino groups, formylamino group, formyl(C_{1-6} alkyl)amino groups, thioformylamino group, thioformyl(C_{1-6} alkyl)amino groups, C_{2-7} alkanoyloxy groups, formyloxy group, C_{1-6}

alkoxycarbonyloxy groups, carbamoyloxy group, C_{1-6} alkylcarbamoyloxy groups, di(C_{1-6} alkyl)carbamoyloxy groups, aminocarbonylamino group, (C_{1-6} alkyl)aminocarbonylamino groups, di(C_{1-6} alkyl)aminocarbonylamino groups, aminocarbonyl(C_{1-6} alkyl)amino groups, (C_{1-6} alkyl)aminocarbonyl(C_{1-6} alkyl)amino groups, di(C_{1-6} alkyl)aminocarbonyl(C_{1-6} alkyl)amino groups, mercapto group, C_{1-6} alkylthio groups, C_{1-6} alkylsulfinyl groups, C_{1-6} alkylsulfonyl groups, aminosulfonyl group, C_{1-6} alkylaminosulfonyl groups, di(C_{1-6} alkyl)aminosulfonyl groups, C_{1-6} alkylsulfonylamino groups, C_{1-6} alkylsulfonyl(C_{1-6} alkyl)amino groups, aminosulfonylamino group, C_{1-6} alkylaminosulfonylamino groups, di(C_{1-6} alkyl)aminosulfonylamino groups, aminosulfonyl(C_{1-6} alkyl)amino groups, C_{1-6} alkylaminosulfonyl(C_{1-6} alkyl)amino groups, and di(C_{1-6} alkyl)aminosulfonyl(C_{1-6} alkyl)amino groups; or N-oxide or S-oxide of the compound; salt thereof; or solvate of the above-described compound.

Claim 24 (Previously Presented): The compound of Claim 18, wherein R^{16} and R^{17} each represents a monocylic or polycyclic aromatic hydrocarbon group having from 6 to 14 carbon atoms, or a heterocyclic group (in which, the hydrocarbon group or heterocyclic group may have 1 to 3 substituents selected from halogen atoms, C_{1-6} alkyl groups, C_{1-6} alkoxy groups, C_{2-6} alkenyl groups, formyl group, C_{2-6} alkanoyl groups, carboxyl group, carboxyamino C_{1-6} alkyl groups, C_{1-6} alkoxycarbonylamino C_{1-6} alkyl groups, oxo group, nitro group, cyano group, amidino group, C_{2-7} alkenyloxy groups, hydroxy group, thioxo group, amino group, C_{1-6} alkylamino groups, di C_{1-6} alkylamino groups, C_{1-6} alkoxycarbonyl groups, carbamoyl group, C_{1-6} alkylcarbamoyl groups, di C_{1-6} alkylcarbamoyl groups, thiocarbamoyl group, C_{1-6} alkylthiocarbamoyl groups, di C_{1-6} alkylthiocarbamoyl groups, mercapto group, C_{1-6} alkylthio groups, C_{1-6} alkylsulfinyl groups and C_{1-6} alkylsulfonyl groups); and

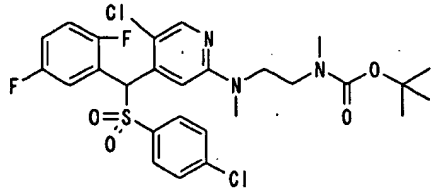
washed with water and brine, dried and then, concentrated under reduced pressure.

The residue thus obtained was dissolved in tetrahydrofuran (10 ml), followed by the addition of triethylamine (31 µl, 0.22 mmol) and di-tert-butyl dicarbonate (49 mg, 0.22 mmol) at room temperature. The resulting mixture was stirred for 15 hours. After the solution was concentrated under reduced pressure, the residue was purified by silica gel chromatography (hexane:ethyl acetate = 4:1), whereby the title compound (68 mg, 64%) was obtained as an oil.

^{1}H-NMR (400 MHz, $CDCl_3$) δ: 1.26 and 1.32 (9H, br-s, rotamer), 2.75 and 2.78 (3H, br-s, rotamer), 2.95 (3H, br-s), 3.30 (2H, m), 3.65 (2H, m), 5.92 (1H, s), 6.6-6.8 (1H, m), 6.84-6.97 (2H, m), 7.05 (1H, m), 7.14 (2H, d, J=8.8 Hz), 7.17 (2H, d, J=8.4 Hz), 7.98 (1H, s).

MS m/z: 568(M^++H).

Example 396: tert-Butyl 2-[N-[5-chloro-4-[(4-chlorophenylsulfonyl)-(2,5-difluorophenyl)methyl]pyridin-2-yl]-N-methylamino]ethyl-methylcarbamate



To a solution of tert-butyl 2-[N-[5-chloro-4-[(4-

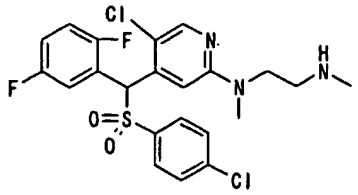
chlorophenylthio)-(2,5-difluorophenyl)methyl]pyridin-2-yl]-N-methylamino]ethyl-methylcarbamate (67 mg, 0.12 mmol) in methanol (6 ml) was added hexaammonium heptamolybdate tetrahydrate (30 mg). A 30% aqueous hydrogen peroxide solution (3 ml) was then added and the mixture was stirred for 17 hours. After dilution with ethyl acetate, the solution was washed with water and brine, and concentrated under reduced pressure. The residue thus obtained was purified by silica gel chromatography (hexane:ethyl acetate = 3:1), whereby the title compound (64 mg, 91%) was obtained as an oil.

^{1}H-NMR (400 MHz, $CDCl_3$) δ: 1.33 and 1.38 (9H, br-s, rotamer), 2.87 and 2.89 (3H, br-s, rotamer), 3.11 (3H, br-s), 3.3-3.4 (2H, m), 3.6-3.9 (2H, m), 6.12 (1H, s), 6.89 (1H, m), 7.00 (1H, m), 7.26 (1H, m), 7.41 (2H, d, J=8.4 Hz), 7.53 (1H, m), 7.59 (2H, d, J=8.4 Hz), 8.00 (1H, s).

MS m/z: 600 (M^++H).

EI-MS: 599.1204 (Calcd for $C_{27}H_{29}Cl_2F_2N_3O_4S$: 599.1224).

Example 397: 5-Chloro-4-[(4-chlorophenylsulfonyl)-(2,5-difluorophenyl)methyl]-2-[N-methyl-N-[2-(methylamino)ethyl]amino]pyridine



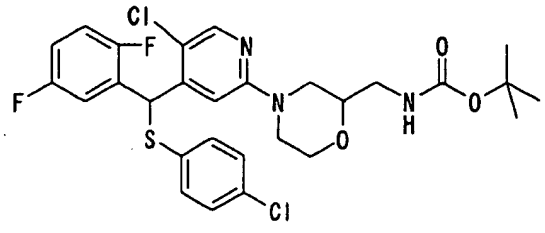
(hydroxymethyl)pyrrolidin-1'-yl]pyridine (39 mg, 0.08 mmol) in methanol (6 ml). A 30% aqueous hydrogen peroxide solution (3 ml) was added to the resulting mixture, followed by stirring for 17 hours. The reaction mixture was diluted with ethyl acetate (60 ml). The solution was washed with water and brine, and concentrated under reduced pressure. The residue was purified by silica gel chromatography (hexane:ethyl acetate = 1:1), whereby the title compound (33 mg, 79%) was obtained as an oil.

^{1}H-NMR (400 MHz, $CDCl_3$) δ: 1.75 (1H, m), 2.02 (3H, m), 3.3-3.5 (1H, m), 3.52-3.75 (3H, m), 4.2-4.35 (1H, m), 6.05 (1H, br-s), 6.84 (1H, m), 6.96 (1H, m), 7.36 (1H, s), 7.36 and 7.37 (2H, d, J=8.8 Hz, rotamer), 7.43 (1H, m), 7.53 and 7.54 (2H, d, J=8.8 Hz, rotamer), 7.89 and 7.90 (1H, s, rotamer).

MS m/z: 513 (M^++H).

FAB-MS: 513.0627 (Calcd for $C_{23}H_{21}Cl_2F_2N_2O_3S$:513.0618).

Example 400: t-Butyl [4-[5-chloro-4-[(4-chlorophenylthio)-(2,5-difluorophenyl)methyl]pyridine-2-yl]morpholine-2-yl]methylcarbamate



A solution of the 2,5-dichloro-4-[(4-

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Bib Data Sheet

CONFIRMATION NO. 7450

SERIAL NUMBER	FILING OR 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/500,156	06/25/2004 RULE	546	1626	254534US0PCT

APPLICANTS

Takanori Yasukouchi, Tokyo, JAPAN;
Masayuki Ito, Tokyo, JAPAN;
Hideki Kubota, Tokyo, JAPAN;
Satoru Miyauchi, Tokyo, JAPAN;
Masanori Saito, Tokyo, JAPAN;

** CONTINUING DATA **********

This application is a 371 of PCT/JP02/13792 12/27/2002

** FOREIGN APPLICATIONS **********

JAPAN 2001-395701 12/27/2001 R.S

Foreign Priority claimed	35 USC 119 (a-d) conditions met	Verified and Acknowledged	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
☒ yes ☐ no	☐ yes ☐ no ☐ Met after Allowance	Examiner's Signature Initials	JAPAN	0	16	1

ADDRESS
22850

TITLE

Beta-amyloid protein production. secretion inhibitor

FILING FEE RECEIVED	FEES: Authority has been given in Paper
920	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:

- ☐ All Fees
- ☐ 1.16 Fees (Filing)
- ☐ 1.17 Fees (Processing Ext. of time)
- ☐ 1.18 Fees (Issue)
- ☐ Other _____
- ☐ Credit

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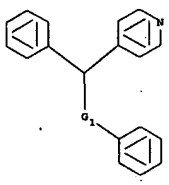

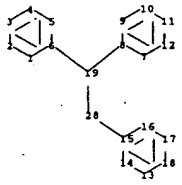

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ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
chain bonds :
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ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15
15-16 16-17 17-18
exact/norm bonds :
15-28 19-28 20-22 21-23 21-24
exact bonds :
6-19 8-19
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15
15-16 16-17 17-18

G1:S,N,[*1],[*2]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS
20:CLASS 21:CLASS
22:CLASS 23:CLASS 24:CLASS 28:CLASS

=> d que l55
L44 169 SEA YASUKOUCHI T?/AU
L45 43708 SEA ITO M?/AU
L46 7285 SEA KUBOTA H?/AU

FILE 'MEDLINE' ENTERED AT 16:02:07 ON 04 JAN 2007

FILE 'EMBASE' ENTERED AT 16:02:07 ON 04 JAN 2007

FILE 'BIOSIS' ENTERED AT 16:02:07 ON 04 JAN 2007

FILE 'WPIX' ENTERED AT 16:02:07 ON 04 JAN 2007

PROCESSING COMPLETED FOR L55
PROCESSING COMPLETED FOR L56
L57 31 DUP REM L55 L56 (4 DUPLICATES REMOVED)
ANSWERS '1-20' FROM FILE HCAPLUS
ANSWERS '21-23' FROM FILE MEDLINE
ANSWERS '24-26' FROM FILE EMBASE
ANSWERS '27-31' FROM FILE BIOSIS

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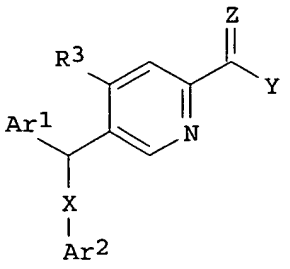
L57 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2006:1093716 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 145:438535
TITLE: Preparation of pyridylmethylsulfone derivatives as inhibitors of production/secretion of ***.beta*** ***.-amyloid*** protein
INVENTOR(S): ***Miyauchi, Satoru***; ***Kubota, Hideki***; Motoki, Kayoko; ***Ito, Masayuki***
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 191pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006109729	A1	20061019	WO 2006-JP307464	20060407

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: JP 2005-112802 A 20050408
JP 2005-367976 A 20051221
OTHER SOURCE(S): MARPAT 145:438535
GI



I

AB The title compds. I [Ar1 = Ph having substituents; Ar2 = (un)substituted Ph, (un)substituted heterocyclyl; Y = H, NR1R2, etc.; R1 = H, alkyl, OH; R2 = H, (un)substituted alkyl, (un)substituted alkoxycarbonyl, etc.; R3 = H, alkyl, halo; X = S, SO, SO2; Z = O, S] are prepared Thus, 5-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-N,4-dimethylpyridine-2-carboxamide was prepared in a multistep process from 2,5-dibromo-4-methylpyridine and 2,5-difluorobenzaldehyde. In an assay for the inhibiting activity against the production of β-***amyloid*** protein, many compds. of this invention showed EC50 values ≤ 5 nM.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Merck & Co Inc	2000			MX 2001008606 A1	
Merck & Co Inc	2000			CZ 200103000 A3	
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Merck Sharp & Dohme Ltd	2001			EP 1268412 A1	HCAPLUS
Merck Sharp & Dohme Ltd	2001			WO 2001070677 A1	
Merck Sharp & Dohme Ltd	2001			AU 200140861 A	
Merck Sharp & Dohme Ltd	2001			JP 2003528076 A	
Merck Sharp & Dohme Ltd	2001			US 2004029862 A1	HCAPLUS

Merck Sharp & Dohme Ltd	2002			EP 1379498 A1	HCAPLUS
Merck Sharp & Dohme Ltd	2002			AU 2001279971 A1	
Merck Sharp & Dohme Ltd	2002			WO 2002081435 A1	
Merck Sharp & Dohme Ltd	2002			US 2004116404 A1	HCAPLUS
Merck Sharp & Dohme Ltd	2002			JP 2004533428 A	

L57 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2006:515047 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 145:80992
TITLE: Serum amyloid A (SAA)-induced remodeling of CSF-HDL
AUTHOR(S): Miida, Takashi; Yamada, Toshiyuki; Seino, Utako; ***Ito, Masayuki***; Fueki, Yuriko; Takahashi, Akihiro; Kosuge, Keiichiro; Soda, Satoshi; Hanyu, Osamu; Obayashi, Konen; Miyazaki, Osamu; Okada, Masahiko
CORPORATE SOURCE: Division of Clinical Preventive Medicine, Department of Community Preventive Medicine, Niigata University Graduate School of Medical and Dental Sciences, Niigata, 951-8510, Japan
SOURCE: Biochimica et Biophysica Acta, Molecular and Cell Biology of Lipids (2006), 1761(4), 424-433
CODEN: BBMLFG; ISSN: 1388-1981
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Inflammation is a risk factor for Alzheimer's disease. Serum amyloid A (SAA) is an acute phase protein that dissocs. apolipoprotein AI (apoAI) from plasma HDL. In cerebrospinal fluid (CSF), the SAA concentration is much higher in subjects with Alzheimer's disease than in controls. CSF-HDL is rich in apoE, which plays an important role as a ligand for lipoprotein receptors in the central nervous system (CNS). To clarify whether SAA dissocs. apoE from CSF-HDL, we added recombinant SAA to CSF and determined the apoE distribution in the CSF using native two-dimensional gel electrophoresis. We found that SAA dissociated apoE from CSF-HDL in a dose-dependent manner. This effect was more evident in apoE4 carriers than in apoE3 or apoE2 carriers. After a 24-h incubation at 37°, SAA continuously dissociated apoE from CSF-HDL. ***Amyloid beta.*** (Aβ) fragments (1-42) were bound to large CSF-HDL but not to apoE dissociated by SAA. In conclusion, SAA dissocs. apoE from CSF-HDL. We postulate that inflammation in the CNS may impair Aβ clearance due to the loss of apoE from CSF-HDL.

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Bauer, J	1991	285	111	FEBS Lett	HCAPLUS
Brewer, H	1972	69	1304	Proc Natl Acad Sci U	HCAPLUS
Busciglio, J	1993	90	2092	Proc Natl Acad Sci U	HCAPLUS
Demeester, N	2000	41	963	J Lipid Res	HCAPLUS
Eto, M	1986	30	422	Clin Genet	MEDLINE
Gahtan, E	1999	23	615	Neurosci Biobehav Re	MEDLINE
Griffin, W	1989	86	7611	Proc Natl Acad Sci U	MEDLINE
Guo, J	2002	22	5900	J Neurosci	HCAPLUS
Gylys, K	2003	84	1442	J Neurochem	HCAPLUS
Haass, C	1992	359	322	Nature	HCAPLUS
Hardy, J	2002	297	353	Science	HCAPLUS
Hatada, K	1999	11	123	Int Psychogeriatr	MEDLINE
Hirayama, S	2005	356	110	Clin Chim Acta	HCAPLUS

Kim, D	1996	271	8373	J Biol Chem	HCAPLUS
Kindy, M	1999	1	155	J Alzheimer's Dis	HCAPLUS
Koudinov, A	1996	223	592	Biochem Biophys Res	HCAPLUS
Koudinov, A	2001	314	115	Neurosci Lett	HCAPLUS
Lagocki, P	1980	255	3701	J Biol Chem	HCAPLUS
Liang, J	1997	225	73	Neurosci Lett	HCAPLUS
Lowry, O	1951	193	265	J Biol Chem	HCAPLUS
Meek, R	1994	91	3186	Proc Natl Acad Sci U	HCAPLUS
Miida, T	2000	20	2428	Arterioscler Thromb	HCAPLUS
Miida, T	1999	38	16958	Biochemistry	HCAPLUS
Miida, T	1996	42	1992	Clin Chem	HCAPLUS
Miida, T	1999	45	1294	Clin Chem	HCAPLUS
Miida, T	2003	14	732	J Am Soc Nephrol	HCAPLUS
Miida, T	2003	44	645	J Lipid Res	HCAPLUS
Miyazaki, O	2000	41	2083	J Lipid Res	HCAPLUS
Murdoch, S	1994	222	427	Anal Biochem	HCAPLUS
Narita, M	1997	68	587	J Neurochem	HCAPLUS
Rocchi, A	2003	61	1	Brain Res Bull	HCAPLUS
Roheim, P	1979	76	4646	Proc Natl Acad Sci U	HCAPLUS
Saito, H	2004	43	350	Prog Lipid Res	HCAPLUS
Selkoe, D	2001	81	741	Physiol Rev	HCAPLUS
Shadlen, M	2000	21	171	Neurobiol Aging	MEDLINE
Taira, K	2001	21	1501	Arterioscler Thromb	HCAPLUS
Tarkowski, E	1999	4	223	J Clin Immunol	
Tokuda, T	2000	348	359	Biochem J	HCAPLUS
Tozuka, M	1992	1165	61	Biochim Biophys Acta	HCAPLUS
Ueda, K	1992	23	798	Stroke	MEDLINE
Uhlar, C	1999	265	501	Eur J Biochem	HCAPLUS
Urieli-Shoval, S	1998	46	1377	J Histochem Cytochem	HCAPLUS
Weisgraber, K	1978	253	6281	J Biol Chem	HCAPLUS
Willnow, T	1996	93	8460	Proc Natl Acad Sci U	HCAPLUS
Yamada, T	1994	1226	323	Biochim Biophys Acta	HCAPLUS
Yamada, T	1996	46	797	Pathol Int	MEDLINE
Yamada, T	2000	52	7	Scand J Immunol	HCAPLUS
Yamauchi, K	1999	45	497	Clin Chem	HCAPLUS
Yamauchi, K	1999	58	301	J Neurosci Res	HCAPLUS
Yokoyama, S	1985	260	16375	J Biol Chem	HCAPLUS

L57 ANSWER 3 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:532638 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 139:101146
TITLE: Preparation of benzyl or heterocyclylmethyl phenyl or heterocyclyl sulfones as β - ***amyloid*** protein production/secretion inhibitors
INVENTOR(S): Yasukochi, Takanori; ***Ito, Masayuki***; ***Kubota, Hideki***; ***Miyauchi, Satoshi***; ***Saito, Masaki***
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 540 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055850	A1	20030710	WO 2002-JP13792	20021227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2471943	A1	20030710	CA 2002-2471943		20021227
AU 2002367147	A1	20030715	AU 2002-367147		20021227
EP 1466898	A1	20041013	EP 2002-790937		20021227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
CN 1585746	A	20050223	CN 2002-827790		20021227
US 2005234109	A1	20051020	US 2004-500156		20040625
PRIORITY APPLN. INFO.:			JP 2001-395701	A	20011227
			WO 2002-JP13792	W	20021227

OTHER SOURCE(S): MARPAT 139:101146

AB Novel compds. having various substituents as represented by the following general formula R1(R2)(R3)C-X-R4, salts thereof, and solvates of the same [wherein X = S, SO, SO2; R1 = CR5R6R7, NR8R9, X1R10, X2R11; wherein R5, R6, R7 = halo, cyano, NO2, -Q51-Q52-Q53-Q54; Q51, Q53 = single bond, CO, S(O), SO2, COCO, COC(S), C(S)C(S); Q52 = single bond, O, ON(A51), ON(COA51), N(A51), N(COA51), N(CO2A51), N[CON(A51)(A52)], N(OA51), N(NA51A52), N(A51)N(A52), N(COA51)N(A52), N(A51)-O, N(COA51)-O, S, N:N, C(A51):N, C(A51):N-O, C(A51):N-N(A52), N:C(A51), O-N:C(A51), N(A51)-N:C(A52), C(:NA51)-N(A52); Q54 = A53, OA53, N(A53)(A54), SA53, NA54-OA53, NA55-N(A53)(A54), O-N(A53)(A54); wherein A51, A52, A53 = H, (un)substituted hydrocarbyl or heterocyclyl; R2, R3, R4, R8, R9, R10, R11 = -Q51-Q52-Q53-Q54 defined in R5-R7; X1 = O, S; X2 = SO, SO2; or R1 and R2 or R3 and R4 are combined together to form (un)substituted cyclohydrocarbyl or heterocyclyl] are prepared These compds. have an effect of inhibiting the production/secretion of a β -***amyloid*** protein and are useful for the prevention or treatment of diseases caused by unusual production/secretion of β -***amyloid***, in particular Alzheimer's disease or Down's syndrome. Thus, a solution of 100 mg 2,5-dichloro-4-[(4-chlorophenylthio)-(2,5-difluorophenyl)methyl]pyridine (preparation given) and 200 μL morpholine in 1.0 mL 1,4-dioxane was stirred at 100° for 2 days to give 4-[5-chloro-4-[(4-chlorophenylthio)-(2,5-difluorophenyl)methyl]pyridin-2-yl]morpholine which (90 mg) was dissolved in 12 mL MeOH, treated with 60 mg ammonium molybdate tetrahydrate [(NH4)6Mo7O24.4H2O] and 6 mL 30% H2O2, and stirred for 8 h to give 83% 4-[5-chloro-4-[(4-chlorophenylsulfonyl)-(2,5-difluorophenyl)methyl]pyridin-2-yl]morpholine (I). I in vitro glioma cell (H4 cell) expressing human β -***amyloid*** protein precursor protein gene (APP751 gene) with EC50 of ≤50 nM.

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
American Cyanamid Co	1979			GB 1554299 A	HCAPLUS
American Cyanamid Co	1979			JP 52-39647 A	HCAPLUS
Anon	1993			DE 4215437 A1	HCAPLUS
Basf A -G	1978			EP 112 A1	HCAPLUS
Basf A -G	1978			DE 2724684 A1	HCAPLUS
Basf A -G	1979			JP 54-30174 A	HCAPLUS
Basf A -G	1979			EP 752 A2	HCAPLUS

Choay S A	1983			FR 2509725 A1	HCAPLUS
Cranham, J	1958	9	147	J Sci Food Agr	HCAPLUS
Fournier, J	1982	17	53	European Journal of	HCAPLUS
Hoechst Ag	1985			EP 153657 A1	HCAPLUS
Hoechst Ag	1985			JP 60-202868 A	HCAPLUS
Hoffmann-La Roche	1984			EP 117485 A2	HCAPLUS
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Hokko Chemical Industry	1987			JP 62-39563 A	HCAPLUS
Ishibashi, H	1991	39	1148	Chemical & Pharmaceu	HCAPLUS
Karavan, V	1989	25	905	Zhurnal Organichesko	HCAPLUS
Lapkin, I	1968		53	Reactions of halo me	HCAPLUS
Lilly Eli And Co	1978			GB 1595261 A	HCAPLUS
Lilly Eli And Co	1978			US 4116665 A	HCAPLUS
Merck Sharp & Dohme Ltd	2002			WO 0281433 A1	
Merck Sharp & Dohme Ltd	2002			WO 0281435 A1	
Merck Sharp & Dohme Ltd	2003			WO 0318543 A1	
Muehlstaedt, M	1986	328	309	Journal fuer Praktis	HCAPLUS
Panteleimonov, A	1966	36	1976	Zhurnal Obshchei Khi	HCAPLUS
Parcor	1979			US 4157399 A	HCAPLUS
Parcor	1979			JP 53-84962 A	HCAPLUS
Rohm And Haas Co	1987			US 4675316 A	HCAPLUS
Skarzewski, J	2001	12	1923	Tetrahedron:Asymmetr	HCAPLUS
Sumitomo Chemical Indus	1982			US 4379921 A	HCAPLUS
Sumitomo Chemical Indus	1982			EP 46658 A2	HCAPLUS
Sumitomo Chemical Indus	1982			JP 57-40475 A	HCAPLUS
Syntex Inc	1977			US 4055652 A	HCAPLUS
Syntex Inc	1977			JP 51-57828 A	HCAPLUS
Takeda Chemical Industr	1998			JP 11-80098 A	HCAPLUS
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Wragg, A	1958		3603	J Chem Soc	HCAPLUS

L57 ANSWER 4 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 1999:632377 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 132:1517
TITLE: Thimet oligopeptidase cleaves the full-length Alzheimer amyloid precursor protein at a β-secretase cleavage site in COS cells
AUTHOR(S): Koike, Hisashi; Seki, Hiroaki; Kouchi, Zen; ***Ito, Masayuki***; Kinouchi, Tadatoshi; Tomioka, Shigeo; Sorimachi, Hiroyuki; Saido, Takaomi C.; Maruyama, Kei; Suzuki, Koichi; Ishiura, Shoichi
CORPORATE SOURCE: Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo, Tokyo, 153-8902, Japan
SOURCE: Journal of Biochemistry (Tokyo) (1999), 126(1), 235-242
CODEN: JOBIAO; ISSN: 0021-924X
PUBLISHER: Japanese Biochemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors developed an assay method using a novel quenched fluorescent substrate (QFS) flanking the β-cleavage site of amyloid precursor protein (APP), and purified a candidate β-secretase from bovine brain. N-terminal amino acid anal. showed the candidate to be thimet oligopeptidase (TOP). The cDNA for human TOP was cloned from a human

brain cDNA library and expressed in COS cells. The enzyme was further purified on a Ni2+-agarose column. TOP cleaved the Swedish Alzheimer's substrate (SEVNLDAEFR) as well as the normal substrate (SEVKMDAEFR). The authors then coexpressed TOP with APP695 in COS cells, collected transfected cells and conditioned media, and analyzed them by immunoblotting. The antibody against the specific secreted APP cleaved by β-secretase (sAPPβ) detected the secretion of sAPPβ only from APP/hTOP-overexpressing cells, and not from cells overexpressing of antisense hTOP cDNA. Finally, the authors analyzed the immunolocalization of overexpressed hTOP in COS cells. Most hTOP was localized in the nuclei, but a small amount was localized in the Golgi or other organelles around the nuclei. These results suggest that TOP has a β-secretase-like activity responsible for the processing of APP.

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Chevallier, N	1997	121	556	Br J Pharmacol	HCAPLUS
Chu, G	1987	15	1311	Nucleic Acids Res	HCAPLUS
Dnado, P	1993	294	451	Biochem J	
Esch, F	1990	248	1122	Science	HCAPLUS
Goldgaber, D	1987	235	877	Science	HCAPLUS
Ishiura, S	1990	115	329	Neurosci Lett	HCAPLUS
Kang, J	1987	325	733	Nature	HCAPLUS
Kato, A	1994	221	159	Eur J Biochem	HCAPLUS
Kinouchi, T	1995	364	203	FEBS Lett	HCAPLUS
Kojima, K	1979	100	43	Anal Biochem	HCAPLUS
Laemmli, U	1970	227	680	Nature	HCAPLUS
Marks, N	1994	15	175	Peptides	HCAPLUS
Meckelein, B	1996	31	246	Genomics	HCAPLUS
Orlowski, M	1983	135	81	Eur J Biochem	HCAPLUS
Pierotti, A	1990	29	10323	Biochemistry	HCAPLUS
Robakis, N	1987	84	4190	Proc Natl Acad Sci U	HCAPLUS
Schmaier, A	1990	75	1273	Blood	HCAPLUS
Schonlein, C	1993	161	33	Neurosci Lett	MEDLINE
Schubert, D	1989	3	689	Neuron	HCAPLUS
Silva, C	1999	255	591	Biochem Biophys Res	HCAPLUS
Sisodia, S	1990	248	492	Science	HCAPLUS
Tagawa, K	1992	674	129	Ann NY Acad Sci USA	HCAPLUS
Tagawa, K	1991	177	377	Biochem Biophys Res	HCAPLUS
Tanzi, R	1988	331	528	Nature	HCAPLUS
Tanzi, R	1987	235	880	Science	HCAPLUS
Thompson, A	1995	213	66	Biochem Biophys Res	HCAPLUS
Thompson, A	1997	48	206	Mol Brain Res	HCAPLUS
Wang, R	1991	266	16960	J Biol Chem	HCAPLUS
Weidemann, A	1989	57	115	Cell	HCAPLUS

L57 ANSWER 5 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:14361 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 142:113905
TITLE: Preparation of heterocyclic methyl sulfone derivatives as β -***amyloid*** protein secretion and production inhibitors
INVENTOR(S): ***Kubota, Hideki***; ***Yasukouchi, Takanori***; ***Miyauchi, Satoru***; Motoki, Kayoko; ***Saito, Masanori***; Iimori, Hitoshi
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 345 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000798	A1	20050106	WO 2004-JP9132	20040629
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004251987	A1	20050106	AU 2004-251987	20040629
CA 2526487	A1	20050106	CA 2004-2526487	20040629
EP 1640366	A1	20060329	EP 2004-746601	20040629
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1812964	A	20060802	CN 2004-80016999	20040629
NO 2005005921	A	20060124	NO 2005-5921	20051213
US 2006241302	A1	20061026	US 2005-561838	20051222
PRIORITY APPLN. INFO.:			JP 2003-187796 A	20030630
			JP 2004-99151 A	20040330
			WO 2004-JP9132 W	20040629

OTHER SOURCE(S): MARPAT 142:113905

AB The title compds. R1R2R4CXR3 (R1 represents an optionally substituted heterocyclic group; R2 represents an optionally substituted cyclic hydrocarbon group or optionally substituted heterocyclic group; R3 represents an optionally substituted cyclic hydrocarbon group or optionally substituted heterocyclic group; R4 represents hydrogen or C1-6 alkyl; and X represents S, SO, or SO2), N-oxides thereof, S-oxides thereof, salts thereof, or solvates thereof are prepared 2-[[(4-Chlorophenyl)sulfonyl](cyclohexyl)methyl]-1,4-difluorobenzene was prepared in several steps from 2,5-difluorobenzyl alc. and 4-chlorobenzenethiol. In an in vitro assay for β-***amyloid*** protein production inhibiting activity, compds. of this invention showed IC50 values of ≤ 5 nM to 500 nM.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Daiichi Pharmaceutical	2003			WO 0355850 A1	
Eli Lilly And Co	1978			GB 1595261 A	HCAPLUS
Eli Lilly And Co	1978			US 4116665 A	HCAPLUS
Eli Lilly And Co	2004			WO 0417977 A2	
Hoechst Schering Agrevo	1996			DE 19521355 A1	HCAPLUS
Hoechst Schering Agrevo	1996			WO 9641799 A1	HCAPLUS
Merck Sharp & Dohme Ltd	2002			WO 0281433 A1	
Merck Sharp & Dohme Ltd	2002			EP 1379496 A1	HCAPLUS
Merck Sharp & Dohme Ltd	2002			US 200482617 A1	
Merck Sharp & Dohme Ltd	2004			WO 0431138 A1	
Nihon Bayer Agrochem Ka	1994			JP 06-25168 A	HCAPLUS

Nihon Bayer Agrochem Ka	1994			JP 06-56780 A	HCAPLUS
Sterling Drug Inc	1980			GB 2028808 A	HCAPLUS
Sterling Drug Inc	1980			US 4257954 A	HCAPLUS
Sterling Drug Inc	1980			JP 55-33473 A	HCAPLUS
Tabakovic, I	1997	29	223	Organic Preparations	HCAPLUS

L57 ANSWER 6 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:703912 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 143:321524
TITLE: A rapid label-rree electrochemical detection and kinetic study of Alzheimer's ***amyloid beta*** aggregation
AUTHOR(S): Vestergaard, Mun'delanji; Kerman, Kagan; ***Saito, Masato***; Nagatani, Naoki; Takamura, Yuzuru; Tamiya, Eiichi
CORPORATE SOURCE: Department of Biological Science and Biotechnology, School of Material Science, Japan Advanced Institute of Science and Technology, 1-1 Asahidai, Nomi City, Ishikawa, 923-1292, Japan
SOURCE: Journal of the American Chemical Society (2005), 127(34), 11892-11893
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors present the first electrochem. detection, characterization, and kinetic study of the aggregation of Alzheimer's disease (AD) ***amyloid beta*** peptides (Aβ-40, Aβ-42) using three different voltammetric techniques at a glassy carbon electrode (GCE). This method is based on detecting changes in the oxidation signal of tyrosine (Tyr) residue. As the peptides aggregate, there are structure conformational changes, which affect the degree of exposure of Tyr to the mol. surface of the peptides. The results show significant differences in the aggregation process between the two peptides, and these correlate highly with established techniques. The method is rapid and label-free, and the principle can be universally applied to other protein aggregation studies related to diseases, such as Huntington's, Parkinson's, and Creutzfeldt Jacob (CJD). This method could also be explored in screening for the effectiveness of AD therapies.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Atwood, C	2004	43	560	Biochemistry	HCAPLUS
Barbec, V	1980	12	159	Biophys Chem	
Bard, A	2001			Electrochemical Meth	
Bitan, G	2003	100	330	Neuroscience	HCAPLUS
Brabec, V	1981	8	451	Bioelectrochem Bioen	HCAPLUS
Cai, X	1996	332	49	Anal Chim Acta	HCAPLUS
Chen, G	2004	64	1018	Talanta	HCAPLUS
de Felice, F	2001	15	1297	FASEB J	HCAPLUS
Deo, R	2004	129	1076	Analyst	HCAPLUS
Huang, X	2004	9	954	J Biol Inorg Chem	HCAPLUS
Jarrett, J	1993	32	4693	Biochemistry	HCAPLUS
Jin, G	2004	6	45	Electrochem Commun	
Klunk, W	2003	23	6	J Neurosci	
Klunk, W	2001	69	1471	Life Sci	HCAPLUS
Krebs, M	2005	149	30	J Struct Biol	HCAPLUS

Lippa, C	1998	352	1117	Lancet	HCAPLUS
Moreno, L	2004	504	251	Anal Chim Acta	
Ono, K	2003	87	172	J Neurochem	HCAPLUS
Reynaud, J	1980	116	595	J Electroanal Chem	
Shen, C	1995	69	640	Biophys J	HCAPLUS
Stine, W	2003	278	11612	J Biol Chem	HCAPLUS
Szabo, Z	1999	265	297	Biochem Biophys Res	HCAPLUS
Wang, J	2000			Analytical Electroch	
Wang, J	2003	60	1239	Talanta	HCAPLUS
Yoshiike, Y	2001	276	32293	J Biol Chem	HCAPLUS
Yoshiike, Y	2001	276	32293	J Biol Chem	HCAPLUS

L57 ANSWER 7 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:688049 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 140:105050
TITLE: Neurotoxicity induced by ***amyloid*** ***beta.***-peptide and ibotenic acid in organotypic hippocampal cultures: protection by S-allyl-L-cysteine, a garlic compound
AUTHOR(S): Ito, Yoshihisa; ***Ito, Moriyuki***; Takagi, Noritaka; Saito, Hiroshi; Ishige, Kumiko
CORPORATE SOURCE: College of Pharmacy, Department of Pharmacology, Nihon University, Funabashi-shi, Chiba, 274-8555, Japan
SOURCE: Brain Research (2003), 985(1), 98-107
CODEN: BRREAP; ISSN: 0006-8993
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have assessed ***amyloid***-β (A.***beta***.)-induced neurotoxicity, with and without added ibotenic acid (IBO), a potent N-methyl-D-aspartate (NMDA) agonist, in an organotypic hippocampal slice culture (OHC). In the OHC, there was little neurotoxicity after treatment with Aβ25-35 (25 or 50 μM) alone for 48 h. However, with IBO alone neuronal death was observed in the pyramidal cell layer at low concns., and there was dramatic neuronal death at concns. of 65 μM or more. When Aβ was combined with IBO (Aβ+IBO) there was more intense cell death than with IBO alone. S-Allyl-L-cysteine (SAC), one of the organosulfur compds. having a thioallyl group in aged garlic extract, was shown to protect the hippocampal neurons in the CA3 area and the dentate gyrus (DG) from the cell death induced by Aβ+IBO with no change in the CA1 area. Although l-glutamate (500 μM) potentiated the degree of IBO-induced neuronal death, it attenuated the Aβ+IBO-induced neuronal death in both the CA3 area and the DG with no obvious effect on the CA1 area. These results suggest that Aβ+IBO induces extensive neuronal death, and that SAC and l-glutamate protect cells from death in specific areas of the hippocampus. In addition, inhibition using a pan-caspase inhibitor, z-VAD-fmk, only provided partial protection from Aβ+IBO-induced toxicity for the neurons in the CA3 area. These results suggest that multiple mechanisms may be involved in Aβ+IBO-induced neuronal death in the OHC.

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Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Adamchik, Y	2000	99	731	Neuroscience	HCAPLUS
Behl, C	1994	77	817	Cell	HCAPLUS
Bratton, S	2001	22	306	Trends Pharmacol Sci	HCAPLUS
Bruce, A	1996	93	2312	Proc Natl Acad Sci U	HCAPLUS
Cassarino, D	1999	29	1	Brain Res Brain Res	HCAPLUS

Choi, D	1990	13	171	Annu Rev Neurosci	HCAPLUS
Ishige, K	2001	30	433	Free Radic Biol Med	HCAPLUS
Ishige, K	2001	21	6069	J Neurosci	HCAPLUS
Ito, Y	1999	35	321	Neurosci Res	HCAPLUS
Ito, Y	2003	46	119	Neurosci Res	HCAPLUS
Koh, J	1990	533	315	Brain Res	HCAPLUS
Koh, J	1991	88	9431	Proc Natl Acad Sci U	HCAPLUS
Liu, W	2001	916	239	Brain Res	HCAPLUS
Marin, N	2000	119	63	Mech Ageing Dev	HCAPLUS
Mattson, M	2001		151	Biochemical Society	HCAPLUS
Mattson, M	1998	16	737	Int J Dev Neurosci	HCAPLUS
Miranda, S	2000	62	633	Prog Neurobiol	HCAPLUS
Moriguchi, T	1994	17	1589	Biol Pharm Bull	HCAPLUS
Moriguchi, T	1997	22	1449	Neurochem Res	HCAPLUS
Moriguchi, T	1997	10	472	Phytother Res	
Morimoto, K	1998	84	479	Neuroscience	HCAPLUS
Nakagawa, T	2000	403	98	Nature	HCAPLUS
Nishiyama, N	1997	32	149	Exp Gerontol	MEDLINE
Noraberg, J	1999	3	278	Brain Res Brain Res	HCAPLUS
Pike, C	1995	64	253	J Neurochem	HCAPLUS
Rao, R	2001	276	33869	J Biol Chem	HCAPLUS
Sagara, Y	2002	277	36204	J Biol Chem	HCAPLUS
Saito, T	2001	305	61	Neurosci Lett	HCAPLUS
Shigemoto, R	1997	17	7503	J Neurosci	HCAPLUS
Thornberry, N	1998	281	1312	Science	HCAPLUS
Troy, C	2000	20	1386	J Neurosci	HCAPLUS
Yamasaki, T	1994	8	408	Phytother Res	HCAPLUS
Yu, Z	1999	155	302	Exp Neurol	HCAPLUS

L57 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:43203 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 139:822
TITLE: Novel therapeutic approach for the treatment of Alzheimer's disease by peripheral administration of agents with an affinity to β - ***amyloid***
AUTHOR(S): Matsuoka, Yasuji; ***Saito, Mitsuo***; LaFrancois, John; ***Saito, Mariko***; Gaynor, Kate; Olm, Vicki; Wang, Lili; Casey, Evelyn; Lu, Yifan; Shiratori, Chiharu; Lemere, Cynthia; Duff, Karen
CORPORATE SOURCE: The Center for Dementia Research, Nathan Kline Institute, Orangeburg, NY, 10962, USA
SOURCE: Journal of Neuroscience (2003), 23(1), 29-33
CODEN: JNRSDS; ISSN: 0270-6474
PUBLISHER: Society for Neuroscience
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Plaques containing β -***amyloid*** (Aβ) peptides are one of the pathol. features of Alzheimer's disease, and the reduction of Aβ is considered a primary therapeutic target. Amyloid clearance by anti-Aβ antibodies has been reported after immunization, and recent data have shown that the antibodies may act as a peripheral sink for Aβ, thus altering the periphery/brain dynamics. Here we show that peripheral treatment with an agent that has high affinity for Aβ (gelsolin or GM1) but that is unrelated to an antibody or immune modulator reduced the level of Aβ in the brain, most likely because of a peripherally acting effect. We propose that in general, compds. that sequester plasma Aβ could reduce or prevent brain amyloidosis, which would enable the development of new therapeutic agents that are not

limited by the need to penetrate the brain or evoke an immune response.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bacskai, B	2002	22	7873	J Neurosci	HCAPLUS
Bard, F	2000	6	916	Nat Med	HCAPLUS
Calhoun, M	1999	96	14088	Proc Natl Acad Sci U	HCAPLUS
Chauhan, V	1999	258	241	Biochem Biophys Res	HCAPLUS
Choo-Smith, L	1997	272	22987	J Biol Chem	HCAPLUS
Das, P	2001	22	721	Neurobiol Aging	HCAPLUS
DeMattos, R	2001	98	8850	Proc Natl Acad Sci U	HCAPLUS
DeMattos, R	2002	295	2264	Science	HCAPLUS
Duff, K	1996	383	710	Nature	HCAPLUS
Ghilardi, J	1996	7	2607	NeuroReport	HCAPLUS
Holcomb, L	1998	4	97	Nat Med	HCAPLUS
Hsiao, K	1996	274	99	Science	HCAPLUS
Janus, C	2000	408	979	Nature	HCAPLUS
Kakio, A	2001	276	24985	J Biol Chem	HCAPLUS
Kawarabayashi, T	2001	21	372	J Neurosci	HCAPLUS
Lemere, C	2002	27	687	Soc Neurosci Abstr	
Morgan, D	2000	408	982	Nature	HCAPLUS
Peretz, D	2001	412	739	Nature	HCAPLUS
Refolo, L	2000	7	321	Neurobiol Dis	HCAPLUS
Refolo, L	2001	8	890	Neurobiol Dis	HCAPLUS
Rost, K	1991	50	141	Clin Pharmacol Ther	HCAPLUS
Saulino, M	1994	37	384	J Neurosci Res	HCAPLUS
Schenk, D	1999	400	173	Nature	HCAPLUS
Selkoe, D	1993	16	403	Trend Neurosci	HCAPLUS
Small, D	2001	2	595	Nat Rev Neurosci	HCAPLUS
Weiner, H	2000	48	567	Ann Neurol	HCAPLUS
Wu, G	1988	173	368	Anal Biochem	HCAPLUS

L57 ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:170716 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 137:194977
TITLE: Discovery of diaminobutane derivatives as Ca2+-permeable AMPA receptor antagonists
AUTHOR(S): Yoneda, Yoshiyuki; Mimura, Tetuya; Kawagoe, Keiichi; ***Yasukouchi, Takanori***; Tatematu, Toshiaki; ***Ito, Masayuki***; Saito, Masaki; Sugimura, Masunobu; Kito, Fusako; Kawajiri, Shinichi
CORPORATE SOURCE: Medicinal Chemistry Research Laboratory, Daiichi Pharmaceutical Co., Ltd., Edogawa-ku, Tokyo, 134-8630, Japan
SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(5), 1347-1359
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:194977

AB We designed and synthesized a series of the polyamine derivs. as potent Ca2+-permeable AMPA receptor antagonists. In the course of this study, we found that the polyamine derivs. exhibited strong hypotensive activity which was undesirable activity for neuroprotective agents. Therefore, we tried to find non-hypotensive antagonists by structural modification of such compds. Through this derivatization, we obtained the diamine compds. having desired profiles. One of the compds. which was non-hypotensive and

potent Ca^{2+}-permeable AMPA receptor antagonist, showed neuroprotective effects in transient global ischemia models in gerbils.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Ahmde, N	2000	31	1250	Stroke	
Ajima, A	1991	12	281	Neurosci Res	HCAPLUS
Aronica, E	1998	95	7115	Proc Natl Acad Sci U	HCAPLUS
Blaschke, M	1993	90	6528	Proc Natl Acad Sci U	HCAPLUS
Blaschke, M	1993	90	6528	Proc Natl Acad Sci U	HCAPLUS
Blaschke, M	1993	90	6528	Proc Natl Acad Sci U	HCAPLUS
Borowicz, K	2000	361	629	Naunyn-Schmiedeberg'	HCAPLUS
Choi, D	1990	13	171	Annu Rev Neurol	HCAPLUS
CompuDrug International				PROLOGP ver 3.0	
Debon, M	1993	235	283	Eur J Pharmacol	
Donevan, S	1994	271	25	J Pharmacol Exp Ther	HCAPLUS
Gorter, J	1997	17	6179	J Neurosci	HCAPLUS
Harbert, A	1998	811	63	Brain Res	
Hollmann, M	1994	17	31	Annu Rev Neurosci	HCAPLUS
Hollmann, M	1991	252	851	Science	HCAPLUS
Iino, M	1996	496	2431	J Physiol	
Kawai, N	1992	581	161	Brain Res	
Kawai, N	1991	98	87	Comp Biochem Physiol	MEDLINE
Kawajiri, S	1993	32	1203	Neuropharmacology	HCAPLUS
Kirino, T	1982	239	57	Brain Res	MEDLINE
Koek, W	1998	245	969	J Pharmcol Exp Ther	
Koike, M	1997	29	27	Neurosci Res	HCAPLUS
Meucci, O	1996	16	519	J Neurosci	HCAPLUS
Monaghan, D	1989	29	365	Annu Rev Pharmacol T	HCAPLUS
Morris, R	1986	319	774	Nature	HCAPLUS
Oguro, K	1999	19	9218	J Neurosci	HCAPLUS
Ohmori, J	1994	37	467	J Med Chem	HCAPLUS
Olney, J	1989	244	1360	Science	HCAPLUS
Olney, J	1991	254	1515	Science	HCAPLUS
Sakimura, K	1990	272	73	FEBS Lett	HCAPLUS
Savide, J	1998	351	131	Eur J Pharmacol	
Sheardown, M	1990	247	571	Science	HCAPLUS
Suzuki, R	1983	60	207	Acta Neuropathol	MEDLINE
Yoneda, Y	2001	11	1261	Bioorg Med Chem Lett	HCAPLUS
Yoneda, Y	2001	11	2663	Bioorg Med Chem Lett	HCAPLUS

L5 ANSWER 10 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:669376 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 138:231672
TITLE: A Comparison of Alfacalcidol and Menatetrenone for the Treatment of Bone Loss in an Ovariectomized Rat Model of Osteoporosis
AUTHOR(S): Shiraishi, A.; Higashi, S.; Masaki, T.; ***Saito, M.***; ***Ito, M.***; Ikeda, S.; Nakamura, T.
CORPORATE SOURCE: Product Research Laboratory, Chugai Pharmaceutical Co., Ltd., Tokyo, Japan
SOURCE: Calcified Tissue International (2002), 71(1), 69-79
CODEN: CTINDZ; ISSN: 0171-967X
PUBLISHER: Springer-Verlag New York Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We conducted this study to evaluate the characteristic effects of alfacalcidol (ALF) and menatetrenone (VK) in preventing bone loss using an

ovariectomized rat model of osteoporosis. Bilateral ovariectomy (OVX) or sham operation was performed on 10-mo-old female Wistar rats. OVX caused a significant decrease in the bone mass and the mech. strength of the lumbar vertebra as well as the femur 6 mo after surgery. VK treatment (30 mg/kg, food intake) required a 6-mo period to prevent the bone loss induced by estrogen deficiency, whereas ALF (0.1 or 0.2 mg/kg, p.o.) increased the bone mass and the mech. strength of the lumbar vertebra as well as the femur in a 3-mo treatment period, far above the level in the sham-operated rats. Neither ALF or VK caused hypercalcemia, despite administration for as long as 6 mo. By doing a micro-CT anal. of the vertebral trabecular microstructure, it was revealed that ALF treatment increased the interconnections and the plate-like structures and that VK significantly increased the trabecular number It was also indicated that the increase in spinal strength by ALF treatment was closely associated with improvement of the microstructure, but not VK. The results of histomorphometric anal. showed that ALF caused a significant suppression of bone resorption yet maintained formation in the endocortical perimeter, and also stimulated bone formation in the periosteal perimeter, thereby causing an increase in cortical area. No marked effect of VK on histomorphometric parameters was observed, whereas VK as well as ALF maintained the material strength at femoral midshaft of the normal level, suggesting that VK affected bone quality and thereby prevented the decrease in mech. strength of femur caused by OVX. In conclusion, it was demonstrated that the two drugs, ALF and VK, differed markedly in their potency and mechanisms for improving bone strength. These results have important implications in understanding the characteristic actions of vitamin K and active vitamin D on bone metabolism

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Akiyama, Y	1995	49	1801	Biochem Pharmacol	HCAPLUS
Akiyama, Y	1994	263	181	Eur J Pharmacol	HCAPLUS
Akiyama, Y	1993	62	145	Jpn J Pharmacol	HCAPLUS
Anon	1991	90	107	Am J Med	
Chen, J	1997	20	557	Bone	HCAPLUS
Dempster, D	2000	15	20	J Bone Miner Res	MEDLINE
Einhorn, T	1992	51	127	Calcif Tissue Int	MEDLINE
Feldkamp, L	1989	4	3	J Bone Miner Res	MEDLINE
Goldstein, S	1993	53	S127	Calcif Tissue Int	
Hahn, M	1992	13	327	Bone	MEDLINE
Hara, K	1993	14	813	Bone	HCAPLUS
Hara, K	1994	104	101	Folia Pharmacol Jpn	HCAPLUS
Hara, K	1993	8	535	J Bone Miner Res	HCAPLUS
Hildebrand, T	1997	1	15	Comp Meth Biochem Bi	
Hildebrand, T	1999	14	1167	J Bone Miner Res	MEDLINE
Hodges, S	1993	8	1241	J Bone Miner Res	MEDLINE
Ikeda, S	2001	28	625	Bone	MEDLINE
Ito, M	1998	23	163	Bone	MEDLINE
Kalu, D	1989	124	7	Endocrinology	HCAPLUS
Katsumata, T	1995	10	921	J Bone Miner Res	HCAPLUS
Koshihara, Y	1992	161	439	J Clin Exp Med	HCAPLUS
Larsson, S	1977	127	228	Clin Orthop Rel Res	HCAPLUS
Lindgren, J	1983	181	265	Clin Orthop Rel Res	
Matsuyama, T	1995	345	1238	Lancet	MEDLINE
Mawatari, T	2000	15	1810	J Bone Miner Res	HCAPLUS
Mosekilde, L	1993	14	1	Bone	MEDLINE
Orimo, H	1994	54	370	Calcif Tissue Int	MEDLINE
Parfitt, A	1987	2	595	J Bone Miner Res	MEDLINE

Plantalech, L	1991	6	1211	J Bone Miner Res	MEDLINE
Price, P	1985	42	65	Vitam Horm	HCAPLUS
Riggs, B	1982	70	716	J Clin Invest	MEDLINE
Ruegsegger, P	1996	58	24	Calcif Tissue Int	MEDLINE
Shiraishi, A	1999	65	311	Calcif Tissue Int	HCAPLUS
Shiraishi, A	2000	15	770	J Bone Miner Res	HCAPLUS
Shiraki, M	1996	43	211	Endocine J	HCAPLUS
Shiraki, M	2000	15	515	J Bone Miner Res	HCAPLUS
Turner, C	1997	61	77	Calcif Tissue Int	HCAPLUS
Turner, R	1987	2	115	J Bone Miner Res	HCAPLUS
Villanueva, A	1974	49	1	Stain Technol	MEDLINE
Yamaura, M	1993	52	49	Calcif Tissue Int	HCAPLUS

L57 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:563274 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 136:303991
TITLE: The optimal molecular weight of dispersive type sodium hyaluronate for the reduction of corneal endothelial damage induced by sonication, irrigation, and aspiration
AUTHOR(S): ***Miyauchi, S.***; ***Ito, M.***; Sakamoto, T.
CORPORATE SOURCE: Central Research Laboratories, Seikagaku Corporation, Higashi-Yamato, Tokyo, Japan
SOURCE: Japanese Journal of Ophthalmology (2001), 45(4), 339-347
CODEN: JJOPA7; ISSN: 0021-5155
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The purpose of this study was to investigate the optimal mol. weight of dispersive sodium hyaluronate (Na-HA) for the reduction of corneal endothelial damage induced by sonication, irrigation, and aspiration, using enucleated pig eyes. The phaco-needle of phacoemulsification and aspiration (PEA) equipment was inserted into the anterior chamber after aqueous humor replacement with a 1% Na-HA solution of various mol. wts. (2420 + 103, 1460 + 103, 1100 + 103, 520 + 103 or 290 + 103). Then sonication, irrigation, and aspiration were conducted for 60 s. The residual rate of Na-HA in the anterior chamber and the damaged area of corneal endothelium were determined using an image analyzer. Na-HA with a mol. weight of 1100 + 103 gradually disappeared from the anterior chamber after mixing with the irrigating solution, and the damaged area in only the 1100 + 103 group was significantly smaller compared with that in the control group. These results suggest that an optimal mol. weight exists for dispersive hyaluronate applied for the protection of intraocular tissues during PEA. Under the conditions of this study, Na-HA with a mol. weight of 1100 + 103 displayed the highest protective efficacy.
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Arshinoff, S	1995	13	98	Ophthalmic Practice	
Bleckmann, H	1986	224	457	Graefes Arch Clin Ex	MEDLINE
Craig, M	1990	16	597	J Cataract Refract S	MEDLINE
Glasser, D	1991	109	1438	Arch Ophthalmol	MEDLINE
Holst, A	1993	12	359	Curr Eye Res	MEDLINE
Koch, D	1993	115	188	Am J Ophthalmol	MEDLINE
Laurent, T	1960	42	476	Biochim Biophys Acta	HCAPLUS
Miyauchi, S	1984	3	1063	Curr Eye Res	HCAPLUS

Miyauchi, S	1996	12	27	J Ocular Pharmacol T	HCAPLUS
Poyer, J	1998	24	84	J Cataract Refract S	MEDLINE
Yanaki, T	1990	30	415	Biopolymers	HCAPLUS

L57 ANSWER 12 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:70813 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 134:208039
TITLE: Synthesis of 2-deoxy-2,3-didehydro-N-acetylneuraminic acid analogues modified at the C-4 and C-9 positions and their behavior towards sialidase from influenza virus and pig liver membrane
AUTHOR(S): Ikeda, K.; Sano, K.; ***Ito, M.***; ***Saito, M.***; Hidari, K.; Suzuki, T.; Suzuki, Y.; Tanaka, K.
CORPORATE SOURCE: Department of Synthetic Organic Chemistry and Medicinal Chemistry, School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, 422-8526, Japan
SOURCE: Carbohydrate Research (2001), 330(1), 31-41
CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:208039
AB The synthesis of novel 2-deoxy-2,3-didehydro-N-acetylneuraminic acid analogs structurally varied at C-4 and C-9 by transformation from versatile key intermediates and their inhibitory activity against sialidase from influenza virus A and pig liver membrane are described.
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Atigadda, V	1999	42	2332	J Med Chem	HCAPLUS
Burmeister, W	1993	1	19	Structure	HCAPLUS
Chong, A	1991	24	165	Biochem Int	HCAPLUS
Chong, A	1992	207	335	Eur J Biochem	HCAPLUS
Das, T	1997	297	243	Carbohydr Res	HCAPLUS
Elosson, M	1997	53	369	Tetrahedron	
Ercegovic, T	1996	61	179	J Org Chem	HCAPLUS
Holzer, C	1993	10	40	Glycoconjugate J	HCAPLUS
Ikeda, K	1998	312	183	Carbohydr Res	HCAPLUS
Ikeda, K	2000	48	163	Chem Pharm Bull	HCAPLUS
Kamei, H	1999	315	243	Carbohydr Res	HCAPLUS
Kobayashi, T	2000	127	569	J Biochem	HCAPLUS
Malet, C	1996	61	4649	J Org Chem	HCAPLUS
Marra, A	1989	187	35	Carbohydr Res	HCAPLUS
Miller, C	1978	83	1479	Biochem Biophys Res	HCAPLUS
Murakami, M	1996	280	101	Carbohydr Res	HCAPLUS
Potier, M	1979	94	287	Anal Biochem	HCAPLUS
Sato, K	1998	8	527	Glycobiology	HCAPLUS
von Itzstein, M	1993	363	418	Nature	HCAPLUS
Wilson, J	2000	11	53	Tetrahedron: Asymmet	HCAPLUS

L57 ANSWER 13 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:646717 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 133:320547
TITLE: Mutant presenilin 2 transgenic mice. A large increase in the levels of Aβ42 is presumably associated with the low density membrane domain that contains

decreased levels of glycerophospholipids and sphingomyelin

AUTHOR(S): Sawamura, Naoya; Morishima-Kawashima, Maho; Waki, Hatsue; Kobayashi, Kimio; Kuramochi, Takashi; Frosch, Matthew P.; Ding, Kai; ***Ito, Mamoru***; Kim, Tae-Wan; Tanzi, Rudolph E.; Oyama, Fumitaka; Tabira, Takeshi; Ando, Susumu; Ihara, Yasuo

CORPORATE SOURCE: Department of Neuropathology, Faculty of Medicine, University of Tokyo, Tokyo, 113-0033, Japan

SOURCE: Journal of Biological Chemistry (2000), 275(36), 27901-27908
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The N141I mutation in presenilin (PS) 2 is tightly linked with a form of autosomal dominant familial Alzheimer's disease in the Volga German families. The authors previously reported that mouse brains harboring mutant PS2 contained increased levels of ***amyloid .beta***. protein (Aβ) 42 in the Tris-saline-soluble fraction. Here, using a new extraction protocol, the authors quantitated the Aβ40 and Aβ42 levels in the Tris-saline-insol. fraction. The insol. Aβ levels were higher than the soluble Aβ levels, and the insol. Aβ42 levels were markedly increased in mutant PS2 transgenic mice. To investigate the origin of the insol. Aβ42, the authors prepared the detergent-insol., low d. membrane fraction. This fraction from two independent lines of mutant PS2 transgenic mice contained remarkably increased levels of Aβ42 and significantly low levels of glycerophospholipids and sphingomyelin. This unexpected finding suggests that a large increase in the levels of Aβ42 in mutant PS2 mice is presumably induced through alterations of the lipid composition in the low d. membrane domain in the brain.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Ando, S	1987		266	Chromatography of Li	HCAPLUS
Asami-Odaka, A	1995	34	10272	Biochemistry	HCAPLUS
Bickel, P	1997	272	13793	J Biol Chem	HCAPLUS
Blusztajn, J	1990	536	240	Brain Res	HCAPLUS
Borchelt, D	1996	17	1005	Neuron	HCAPLUS
Brown, D	1997	240	1	Biochem Biophys Res	HCAPLUS
Brown, D	1992	68	533	Cell	HCAPLUS
Choo-Smith, L	1997	272	22987	J Biol Chem	HCAPLUS
Citron, M	1997	3	67	Nat Med	HCAPLUS
Cook, D	1997	3	1021	Nat Med	HCAPLUS
Cook, D	1996	93	9223	Proc Natl Acad Sci U	HCAPLUS
De Strooper, B	1998	391	387	Nature	HCAPLUS
Duff, K	1996	383	710	Nature	HCAPLUS
Gravina, S	1995	270	7013	J Biol Chem	HCAPLUS
Haass, C	1997	18	687	Neuron	HCAPLUS
Hamano, T	1997	56	922	J Neuropathol Exp Ne	MEDLINE
Hartmann, T	1997	3	1016	Nat Med	HCAPLUS
Ida, N	1996	271	22908	J Biol Chem	HCAPLUS
Itoh, Y	1986	154	200	Anal Biochem	HCAPLUS
Iwatsubo, T	1995	37	294	Ann Neurol	HCAPLUS
Iwatsubo, T	1994	13	45	Neuron	HCAPLUS
Jarrett, J	1993	32	4693	Biochemistry	HCAPLUS

Johnson-Wood, K	1997	94	1550	Proc Natl Acad Sci U	HCAPLUS
Kang, D	1999	19	4229	J Neurosci	HCAPLUS
Kang, J	1987	325	733	Nature	HCAPLUS
Kim, T	1997	272	11006	J Biol Chem	HCAPLUS
Koo, E	1994	269	17386	J Biol Chem	HCAPLUS
Kovacs, D	1996	2	224	Nat Med	HCAPLUS
Kramer, E	1997	272	8937	J Biol Chem	MEDLINE
Lee, S	1998	4	730	Nat Med	HCAPLUS
Levy-Lahad, E	1995	269	970	Science	HCAPLUS
Levy-Lahad, E	1995	269	973	Science	HCAPLUS
Lisanti, M	1994	126	111	J Cell Biol	HCAPLUS
Mason, R	1992	13	413	Neurobiol Aging	MEDLINE
Miettinen, T	1959	13	856	Acta Chem Scand	HCAPLUS
Mizuno, T	1999	274	15110	J Biol Chem	HCAPLUS
Morishima-Kawashima, M	1998	37	15247	Biochemistry	HCAPLUS
Nakabayashi, J	1998	57	343	J Neuropathol Exp Ne	MEDLINE
Nitsch, R	1992	89	1671	Proc Natl Acad Sci U	HCAPLUS
Olive, S	1995	65	2307	J Neurochem	HCAPLUS
Oyama, F	1998	71	313	J Neurochem	HCAPLUS
Rogaev, E	1995	376	775	Nature	HCAPLUS
Scheek, S	1997	94	11179	Proc Natl Acad Sci U	HCAPLUS
Schellenberg, G	1992	258	668	Science	HCAPLUS
Scheuner, D	1996	2	864	Nat Med	HCAPLUS
Selkoe, D	1999	399	A23	Nature	HCAPLUS
Sherrington, R	1995	375	754	Nature	HCAPLUS
Shinkai, Y	1997	42	899	Ann Neurol	MEDLINE
Simons, K	1997	387	569	Nature	HCAPLUS
Singh, H	1971	12	473	J Lipid Res	HCAPLUS
Soderberg, M	1992	59	1646	J Neurochem	MEDLINE
Suzuki, N	1994	145	452	Am J Pathol	HCAPLUS
Suzuki, N	1994	264	1336	Science	HCAPLUS
Tomita, T	1997	94	2025	Proc Natl Acad Sci U	HCAPLUS
Waki, H	1994	222	156	Anal Biochem	HCAPLUS
Walter, J	1996	2	673	Mol Med	HCAPLUS
Wild-Bode, C	1997	272	16085	J Biol Chem	HCAPLUS
Wolfe, M	1999	398	513	Nature	HCAPLUS
Xu, G	1996	53	29	Microchem J	HCAPLUS
Xu, H	1997	94	3748	Proc Natl Acad Sci U	HCAPLUS
Yanagisawa, K	1995	1	1062	Nat Med	HCAPLUS
Yoo, A	2000			to be published in N	

L57 ANSWER 14 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:344499 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 131:43172
TITLE: Preparation of Alzheimer's disease model animals carrying human PS2 gene
INVENTOR(S): Ihara, Yasuo; Koyama, Fumitaka; ***Ito, Mamoru***
PATENT ASSIGNEE(S): Foundation for Scientific Technology Promotion, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11146743	A	19990602	JP 1997-315346	19971117
PRIORITY APPLN. INFO.:			JP 1997-315346	19971117

AB An Alzheimer's disease model animal carrying the human PS2 (presenilin 2) gene or its mutants is provided. A transgenic animal, e.g., a mouse, carrying PS2 gene having mutation of 141-Asp→Ile or 239-Met→Val is prepared Methods of using the transgenic animals for detecting pathogenic substances causing Alzheimer's disease by observing the effect of the substances on the production of ***amyloid*** . ***beta***. protein by the animals are also claimed.

L57 ANSWER 15 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:412541 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 129:134656
TITLE: Mutant presenilin 2 transgenic mouse: effect on an age-dependent increase of ***amyloid*** . ***beta***.-protein 42 in the brain
AUTHOR(S): Oyama, Fumitaka; Sawamura, Naoya; Kobayashi, Kimio; Morishima-Kawashima, Maho; Kuramochi, Takashi; ***Ito, Mamoru***; Tomita, Taisuke; Maruyama, Kei; Saido, Takaomi C.; Iwatsubo, Takeshi; Capell, Anja; Walter, Jochen; Grunberg, Jurgen; Ueyama, Yoshito; Haass, Christian; Ihara, Yasuo
CORPORATE SOURCE: Department of Neuropathology, Faculty of Medicine, University of Tokyo, Tokyo, 113, Japan
SOURCE: Journal of Neurochemistry (1998), 71(1), 313-322
CODEN: JONRA9; ISSN: 0022-3042
PUBLISHER: Lippincott-Raven Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The N141I missense mutation in presenilin (PS) 2 is tightly linked with a form of autosomal dominant familial Alzheimer's disease (AD) in the Volga German families. The authors have generated transgenic mouse lines overexpressing human wild-type or mutant PS2 under transcriptional control of the chicken β-actin promoter. In the brains of transgenic mice, the levels of human PS2 mRNA were five- to 15-fold higher than that of endogenous mouse PS2 mRNA. The ***amyloid*** β -protein (Aβ) 42 levels in the brains of mutant PS2 transgenic mice were higher than those in wild-type PS2 transgenic mice at the age of 2, 5, or 8 mo. In addition, the Aβ42 levels appeared to increase steadily in the mutant PS2 transgenic mouse brains from 2 to 8 mo of age, whereas there was only a small increase in wild-type transgenic mice between the ages of 5 and 8 mo. There was no definite difference in the levels of N-terminal and C-terminal fragments between wild-type and mutant PS2 transgenic mice at the age of 2, 5, or 8 mo. These data show a definite effect of the PS2 mutation on an age-dependent increase of Aβ42 content in the brain.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Asami-Odaka, A	1995	34	10272	Biochemistry	HCAPLUS
Borchelt, D	1996	17	1005	Neuron	HCAPLUS
Chomczynski, P	1987	162	120	Anal Biochem	
Citron, M	1996	3	67	Nat Med	
Duff, K	1996	383	710	Nature	HCAPLUS
Glenner, G	1984	120	885	Biochem Biophys Res	HCAPLUS
Gravina, S	1995	270	7013	J Biol Chem	HCAPLUS
Gu, Y	1996	67	1235	J Neurochem	HCAPLUS
Haass, C	1997	18	687	Neuron	HCAPLUS
Ishizawa, M	1991	19	5792	Nucleic Acids Res	HCAPLUS
Iwatsubo, T	1995	37	294	Ann Neurol	HCAPLUS
Iwatsubo, T	1994	13	45	Neuron	HCAPLUS

Jarrett, J	1993	32	4693	Biochemistry	HCAPLUS
Kang, J	1987	325	733	Nature	HCAPLUS
Kim, T	1997	272	11006	J Biol Chem	HCAPLUS
Kim, T	1997	277	373	Science	HCAPLUS
Koo, E	1994	269	17386	J Biol Chem	HCAPLUS
Kosaka, T	1997	48	741	Neurology	MEDLINE
Kovacs, D	1996	2	224	Nat Med	HCAPLUS
Levy-Lahad, E	1995	269	970	Science	HCAPLUS
Levy-Lahad, E	1995	269	973	Science	HCAPLUS
Masters, C	1985	82	4245	Proc Natl Acad Sci U	HCAPLUS
Niwa, H	1991	108	192	Gene	
Rogaev, E	1995	376	775	Nature	HCAPLUS
Roher, A	1993	268	3072	J Biol Chem	HCAPLUS
Schellenberg, G	1992	258	668	Science	HCAPLUS
Scheuner, D	1996	2	864	Nat Med	HCAPLUS
Sherrington, R	1995	375	754	Nature	HCAPLUS
Suzuki, N	1994	145	452	Am J Pathol	HCAPLUS
Suzuki, N	1994	264	1336	Science	HCAPLUS
Tomita, T	1997	94	2025	Proc Natl Acad Sci U	HCAPLUS
Vassilacopoulou, D	1995	64	2140	J Neurochem	HCAPLUS
Vito, P	1996	271	31025	J Biol Chem	HCAPLUS
Vito, P	1997	272	28315	J Biol Chem	HCAPLUS
Vito, P	1996	271	521	Science	HCAPLUS
Walter, J	1996	2	673	Mol Med	HCAPLUS
Wolozin, B	1996	274	1710	Science	HCAPLUS

L57 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:86769 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 124:172629
TITLE: Basic fibroblast growth factor-heparan sulfate complex in the human dialysis-related amyloidosis
AUTHOR(S): Morita, Hiroyuki; Shinzato, Toru; Cai, Zhe; David, Guido; Mizutani, Akihiro; Habuchi, Hiroko; ***Ito, Masafumi***; Asai, Junpei; Isobe, Ken-ichi; et al.
CORPORATE SOURCE: Department Internal Medicine, Branch Hospital Nagoya University, Nagoya, 461, Japan
SOURCE: Virchows Archiv (1995), 427(4), 395-400
CODEN: VARCEM; ISSN: 0945-6317
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A major constituent of the amyloid fibrils in dialysis-related ***amyloidosis*** is β 2-microglobulin (β2-MG). Heparan sulfates (HS) co-localize with the amyloid fibrils and monocytes/macrophages are commonly found around amyloid deposits, but the role of HS in amyloidogenesis is not yet defined. HS have variable saccharide sequences and can interact specifically with basic fibroblast growth factor (bFGF), a potent chemotactic factor for the monocyte/macrophage. The present investigation was undertaken to look for a functional link between co-localized HS and the pathogenesis of dialysis-related amyloidosis. Using amyloid-enriched ligament, immunohistochem. localization was tested for β2-MG, endogenous bFGF, and bFGF-binding portions of HS. For the detection of bFGF-binding portions of HS, the ligament sections were incubated with exogenous bFGF and then with anti-bFGF antibody. The specificity of the interaction between bFGF and HS was established by confirming a concomitant loss of immunoreactivity during selective removal of HS with heparitinase, B3-MG, endogenous bFGF, and bFGF-binding portions of HS were detected between bundles of collagen. Endogenous bFGF and bFGF-binding portions of HS were

not detected in more advanced amyloid lesions, whereas B2-MG and other portions of HS were detected. We propose that β2-MG, endogenous bFGF, and bFGF-binding portions of HS form a complex and localize in the early amyloid lesions of dialysis-related amyloidosis.

L57 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:145668 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 90:145668
TITLE: Inhibition of dopamine-sensitive adenylate cyclase in rat striatum by neuroleptic drugs administered in vivo
AUTHOR(S): Nakahara, T.; Uchimura, H.; ***Saito, M.***; Hirano, M.; Kim, J. S.; ***Ito, M.***
CORPORATE SOURCE: Dep. Chem., Kyushu Univ., Fukuoka, Japan
SOURCE: Journal of Neurochemistry (1978), 31(5), 1335-7
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The dopamine [51-61-6]-stimulated adenylate cyclase (I) [9012-42-4] activity in rat striatal homogenates was competitively inhibited after administration of chlorpromazine [50-53-3] (25-180 mg/kg, i.p.) or haloperidol [52-86-8] (5-35 mg/kg, i.p.) (Ki 0.13 and 0.052μM, resp.). The apparent Km values of I for dopamine were dose-dependently increased by the drugs. Haloperidol was .apprx.9 times more potent than chlorpromazine in reducing the dopamine I response when drugs were given in vivo, but only 2.5 times more potent when drugs were added in vitro. There was, therefore, a better correlation between the relative potency of drugs in reducing the dopamine I response in striatum and in antagonizing dopamine-mediated behavior in animals after in vivo administration.

L57 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:149490 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 88:149490
TITLE: Choline acetyltransferase and acetylcholinesterase activities in limbic nuclei of the rat brain
AUTHOR(S): Uchimura, H.; Kim, J. S.; ***Saito, M.***; Hirano, M.; ***Ito, M.***; Nakahara, T.
CORPORATE SOURCE: Lab. Neurochem., Hizen Natl. Ment. Hosp., Saga, Japan
SOURCE: Journal of Neurochemistry (1978), 30(1), 269-72
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The quant. distribution of choline acetyltransferase (EC 2.3.1.6) and acetylcholinesterase (EC 3.1.1.7) in the limbic nuclei of rat brain was determined using microdissection and a radiochem. microassay. Both enzymes were distributed unevenly, and choline acetyltransferase showed an .apprx.30-fold difference between the highest and lowest activity in the limbic areas studied.

L57 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:149489 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 88:149489
TITLE: Monoamine oxidase activities for serotonin and tyramine in individual limbic and lower brain stem nuclei of the rat
AUTHOR(S): Hirano, M.; Kim, J. S.; ***Saito, M.***; Uchimura, H.; ***Ito, M.***; Nakahara, T.
CORPORATE SOURCE: Lab. Neurochem., Hizen Natl. Ment. Hosp., Saga, Japan
SOURCE: Journal of Neurochemistry (1978), 30(1), 263-7
CODEN: JONRA9; ISSN: 0022-3042

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Monoamine oxidase (EC 1.4.3.4) (I) activities toward tyramine and toward serotonin (I-A) were unevenly distributed throughout the limbic and lower brain stem nuclei of the rat. There were 10- and 5-fold differences between the highest and lowest contents of I and I-A, resp. Extremely high levels of I were detected in some circumventricular regions. Differences in the ratios of I-A to I were found throughout the areas examined

L57 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1977:564812 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 87:164812
TITLE: Tyrosine hydroxylase activity in the catecholamine nerve terminals and cell bodies of the rat brain
AUTHOR(S): ***Saito, M.***; Hirano, M.; Uchimura, H.; Nakahara, T.; ***Ito, M.***
CORPORATE SOURCE: Lab. Neurochem., Hizen Natl. Ment. Hosp., Saga, Japan
SOURCE: Journal of Neurochemistry (1977), 29(1), 161-5
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Tyrosine hydroxylase (EC 1.14.16.1) (I) activity in the hypothalamic nuclei was highest in the median eminence and relatively high in the anterior part of the nucleus periventricularis, medial zona incerta, and nucleus arcuatus. In the mesolimbic dopamine neuron system, the A10 cell group had 2- to 5-fold higher I activity than that of the nucleus accumbens and tuberculum olfactorium. In the nigrostriatal dopamine neuron system, the A9 cell group had about twice the I activity of the nucleus caudatus putamen. I activity in pontine noradrenaline cell groups was highest in the A6 cell group.

L57 ANSWER 21 OF 31 MEDLINE on STN
ACCESSION NUMBER: 2003170873 MEDLINE <<LOGINID::20070104>>
DOCUMENT NUMBER: PubMed ID: 12689696
TITLE: Characteristic developmental expression of amyloid beta40, 42 and 43 in patients with Down syndrome.
AUTHOR: Hirayama Aya; Horikoshi Yuko; Maeda Masahiro; ***Ito Masayuki***; Takashima Sachio
CORPORATE SOURCE: Department of Pediatrics, Akita University, Akita, Japan.. aya@ped.med.akita-u.ac.jp
SOURCE: Brain & development, (2003 Apr) Vol. 25, No. 3, pp. 180-5.
Journal code: 7909235. ISSN: 0387-7604.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 16 Apr 2003
Last Updated on STN: 10 Jul 2003
Entered Medline: 9 Jul 2003
AB We immunohistochemically studied the expression of ***beta-amyloid*** precursor protein (APP), Abeta40, Abeta42, and Abeta43 in the frontal lobes of 20 Down syndrome (DS) patients and 13 controls. The immunoreactivity for each antibody was different in the degree of intensity and the chronological pattern of expression. APP and Abeta43

immunoreactivity was increased in neurons initially, and then Abeta43 and 42 immunoreactivity appeared in diffuse plaques from 32 years of age. APP and Abeta43 were characteristically observed in axons around senile plaques. Finally, Abeta40 immunoreactivity was detected in the cores of senile plaques. This time course of immunoreactive expression may be related to the pathogenetic process of Alzheimer-type dementia in DS, and the axonal damage in senile plaques may lead to the formation of neurofibrillary tangles (NFT) or neuronal death through axonal flow disturbance and accumulation of Abeta43 in cortical neurons.

L57 ANSWER 22 OF 31 MEDLINE on STN
ACCESSION NUMBER: 2001483591 MEDLINE <<LOGINID::20070104>>
DOCUMENT NUMBER: PubMed ID: 11327303
TITLE: Early immunohistochemical detection of axonal damage and glial activation in extremely immature brains with periventricular leukomalacia.
AUTHOR: Hirayama A; Okoshi Y; Hachiya Y; Ozawa Y; ***Ito M***; Kida Y; Imai Y; Kohsaka S; Takashima S
CORPORATE SOURCE: Department of Clinical Laboratory, National Center Hospital for Mental, Nervous and Muscular Disorders, National Center of Neurology and Psychiatry, Tokyo, Japan.. aya@ncnp.go.jp
SOURCE: Clinical neuropathology, (2001 Mar-Apr) Vol. 20, No. 2, pp. 87-91.
Journal code: 8214420. ISSN: 0722-5091.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 3 Sep 2001
Last Updated on STN: 3 Sep 2001
Entered Medline: 30 Aug 2001

AB Extremely low birth weight (ELBW) infants, who died at 12 hours to 7 days after birth, with periventricular leukomalacia (PVL), were examined by means of neuropathological and immunohistochemical methods. Fourteen infants without PVL were used as controls. Anti-***beta-amyloid*** precursor protein (APP), glial fibrillary acidic protein (GFAP), and ionized calcium-binding adaptor molecule 1 (Iba1) antibodies were used as markers for axonal damage, reactive astrocytes and activated microglia, respectively. Thirteen of 14 ELBW infants with PVL showed a widespread distribution of leukomalacia and 10 showed postnatal-onset of leukomalacia. In 12 of the 14 infants with PVL, regions of APP-reactive axons were found multifocally in the cerebral white matter, but 8 of them did not show coagulation necrosis on HE staining. GFAP-positive cells and Iba1-positive cells were markedly found in the white matter of all cases with PVL and slightly in all 14 controls. These results indicated that in ELBW infants, the distribution and formation of PVL foci are widespread and characteristic and so may involve motor and intellectual abilities in ELBW infants. Therefore, the perinatal management to maintain an appropriate cerebral circulation and oxygenation may be very important.

L57 ANSWER 23 OF 31 MEDLINE on STN
ACCESSION NUMBER: 97263807 MEDLINE <<LOGINID::20070104>>
DOCUMENT NUMBER: PubMed ID: 9108164
TITLE: A novel method for making nested deletions and its application for sequencing of a 300 kb region of human APP locus.
AUTHOR: Hattori M; Tsukahara F; Furuhata Y; Tanahashi H; Hirose M; ***Saito M***; Tsukuni S; Sakaki Y

CORPORATE SOURCE: Human Genome Center, Institute of Medical Science, University of Tokyo, Tokyo 108, Japan.
SOURCE: Nucleic acids research, (1997 May 1) Vol. 25, No. 9, pp. 1802-8.
Journal code: 0411011. ISSN: 0305-1048.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-D87675
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 9 Jun 1997
Last Updated on STN: 29 Jan 1999
Entered Medline: 29 May 1997

AB We developed a novel in vitro method for making nested deletions and applied it to a large-scale DNA sequencing. A DNA fragment to be sequenced (up to 15 kb long) was cloned with a new vector possessing two unique Sfi I sites, digested by Sfi I and ligated to generate a large head-to-tail concatemer. The large concatemer was randomly fragmented by sonication and then redigested by Sfi I to separate insert and vector DNAs. The fragments of various length were then cloned into the other vector(s) specifically designed for selective cloning of insert-derived DNA fragments to generate a library of nested deletions. This method allowed a single person to generate >20 nested deletion libraries sufficient to cover 100 kb in a few days. We applied the method for sequencing of P1 clones and successfully determined the complete sequence of approximately 300 kb of the human amyloid precursor protein (APP) locus on chromosome 21 with a redundancy of 3.8, reasonably low cost and very few gaps remaining to be closed. Development of some new instruments and software is also described which makes this method more applicable for large-scale sequencing.

L57 ANSWER 24 OF 31 EMBASE
ACCESSION NUMBER: 1999123508 EMBASE <<LOGINID::20070104>>
TITLE: The early induction of cyclooxygenase 2 associated with neurofibrillary degeneration in brains of patients with Fukuyama-type congenital muscular dystrophy.
AUTHOR: Oka A.; ***Ito M.***; Takashima S.
CORPORATE SOURCE: Dr. A. Oka, Division of Child Neurology, Institute of Neurological Sciences, Tottori University, 36-1 Nishimachi, Yonago, Tottori 683-8504, Japan
SOURCE: Neuropediatrics, (1999) Vol. 30, No. 1, pp. 34-37. .
Refs: 26
ISSN: 0174-304X CODEN: NRPDDB
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 007 Pediatrics and Pediatric Surgery
008 Neurology and Neurosurgery
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 22 Apr 1999
Last Updated on STN: 22 Apr 1999

AB Brains of thirteen patients with Fukuyama-type congenital muscular dystrophy (FCMD) were evaluated regarding the expression of cyclooxygenase 2 (COX2), an enzyme involved in the synthetic pathway of prostaglandins and thromboxanes, as well as neurofibrillary tangles (NFT). The neuronal induction of COX2 was demonstrated with immunohistochemistry and Western blotting confirmed the up-regulation. Preceded by COX2 immunoreactivity,

NFT-containing neurons appeared in the majority of FCMD patients without ***beta.-amyloid*** deposition or senile plaques. The hippocampus did not demonstrate neurodegeneration, while, in other areas, neurons with NFT spread in a similar manner to Alzheimer's disease. NFT-bearing neurons were concomitantly shown to be immunoreactive to COX2. The precedent induction of COX2, therefore, may be related to the formation of NFT in this genetic disorder.

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ACCESSION NUMBER: 97346645 EMBASE <<LOGINID::20070104>>
DOCUMENT NUMBER: 1997346645
TITLE: Impairment of cathepsin B immunoreactivity in the hippocampal nerve cells with aging in the elderly: Possible evidence for dysfunction of lysosomal proteolysis in relation to the pathogenesis of Alzheimer's disease.
AUTHOR: Ii K.; Towatari T.; ***Ito M.***; Ohama E.; Hirano A.
CORPORATE SOURCE: Dr. K. Ii, The First Department of Pathology, School of Medicine, The University of Tokushima, Kuramoto-Cho 3-18-15, Tokushima 770, Japan
SOURCE: Neuropathology, (1997) Vol. 17, No. 3, pp. 189-195. .
Refs: 47
ISSN: 0919-6544 CODEN: NOPAFH
COUNTRY: Australia
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
008 Neurology and Neurosurgery
021 Developmental Biology and Teratology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 1 Dec 1997
Last Updated on STN: 1 Dec 1997

AB Immunohistochemical localization of cathepsin B (CB) in the hippocampal nerve cells was examined in patients ranging from age 18 days to 82 years to examine the change of proteolytic activity of nerve cells with aging through the CB immunoreactivity. Although it varied from case to case, region to region, and to some degree cell to cell, generally, CB immunoreactivity in the nerve cells was weak in the newborn, strong from age 7 to about 60, and decreased in most nerve cells, or the number of nerve cells with impaired CB immunoreactivity increased, after about 60 years of age. This suggests impairment of protein metabolism and/or dysfunction of lysosomal proteolysis in the nerve cells with aging. The last finding may be important as a background or preceding phenomenon that may cause abnormal protein metabolism relating to the formation of neurofibrillary tangles and/or senile plaques with aging and in Alzheimer's disease (AD)..The involvement of CB in the metabolism of A. ***beta.-amyloid*** protein precursors (APP and the possible close relation of presenilins to APP should also be considered.

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ACCESSION NUMBER: 93142480 EMBASE <<LOGINID::20070104>>
DOCUMENT NUMBER: 1993142480
TITLE: Immunological study of Alzheimer's disease using anti-β-protein monoclonal antibodies.
AUTHOR: Ota M.; Imai K.; Saito N.; Ito F.; Tsujisaki M.; Sugiyama T.; Hinoda Y.; Yachi A.; Ksai M.; Kawaharada M.; Sato Y.; Urasawa K.; ***Ito M.***; Yashiro N.; Okuse S.; Oyama

T.; Nomata Y.; Hikawa A.; Kasahara H.
CORPORATE SOURCE: Department Internal Medicine, Sapporo Medical College,Chuo-ku, Sapporo 060, Japan
SOURCE: Japanese Journal of Geriatrics, (1993) Vol. 30, No. 1, pp. 23-29. .
ISSN: 0300-9173 CODEN: NIRZAL
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
020 Gerontology and Geriatrics
037 Drug Literature Index
LANGUAGE: Japanese
SUMMARY LANGUAGE: English; Japanese
ENTRY DATE: Entered STN: 13 Jun 1993
Last Updated on STN: 13 Jun 1993
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L57 ANSWER 27 OF 31 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:223212 BIOSIS <<LOGINID::20070104>>
DOCUMENT NUMBER: PREV200300223212
TITLE: Characterization of ***amyloid beta*** -protein neurotoxicity in rat organotypic hippocampal slice cultures in premature and mature condition.
AUTHOR(S): Takagi, Noritaka [Reprint Author]; ***Ito, Moriyuki*** [Reprint Author]; Tabata, Keiichi [Reprint Author]; Arakawa, Motoki [Reprint Author]; Ishige, Kumiko [Reprint Author]; Ito, Yoshihisa [Reprint Author]
CORPORATE SOURCE: Dept. Pharmacol., Coll. Pharm., Nihon Univ., Funabashi, 274-8555, Japan
SOURCE: Journal of Pharmacological Sciences, (2003) Vol. 91, No. Supplement I, pp. 210P. print.
Meeting Info.: 76th Annual Meeting of the Japanese Pharmacological Society. Fukuoka, Japan. March 24-26, 2003. Japanese Pharmacological Society.
ISSN: 1347-8613 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 May 2003
Last Updated on STN: 7 May 2003

L57 ANSWER 28 OF 31 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:267058 BIOSIS <<LOGINID::20070104>>
DOCUMENT NUMBER: PREV200200267058
TITLE: Characterization of cell death induced ***amyloid beta***-protein and ibotenic acid in cultured hippocampal slices.
AUTHOR(S): ***Ito, Moriyuki*** [Reprint author]; Takagi, Noritaka [Reprint author]; Ishige, Kumiko [Reprint author]; Edagawa, Yoshikuni [Reprint author]; Saito, Hiroshi [Reprint author]; Ito, Yoshihisa [Reprint author]
CORPORATE SOURCE: Dept. Pharmacol., Coll. of Pharmacy, Nihon Univ., 274-8555, Chiba, Japan
SOURCE: Japanese Journal of Pharmacology, (2002) Vol. 88, No. Supplement 1, pp. 244P. print.
Meeting Info.: 75th Annual Meeting of the Japanese Pharmacological Society. Kumamoto, Japan. March 13-15,

2002. Japanese Pharmacological Society.
CODEN: JJPAAZ. ISSN: 0021-5198.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 May 2002
Last Updated on STN: 1 May 2002

L57 ANSWER 29 OF 31 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:562209 BIOSIS <<LOGINID::20070104>>
DOCUMENT NUMBER: PREV200100562209
TITLE: ***Amyloid beta***-protein and ibotenic acid-induced cell death in hippocampal slice and primary cultures, and effect of S-allyl-L-cysteine on this neuronal death.
AUTHOR(S): ***Ito, M.*** [Reprint author]; Kosuge, Y. [Reprint author]; Ishige, K. [Reprint author]; Edagawa, Y. [Reprint author]; Saito, H. [Reprint author]; Ito, Y. [Reprint author]
CORPORATE SOURCE: Department of Pharmacology, College of Pharmacy, Nihon University, Funabashi-shi, Chiba, Japan
SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 1723. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001.
ISSN: 0190-5295.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 2001
Last Updated on STN: 25 Feb 2002

AB Senile plaques, which are a hallmark of Alzheimer's disease, are composed of ***amyloid beta***-protein (Abeta) fragments. Although Abeta has been found to produce neurotoxicity, the underlying mechanisms are not fully understood. It has been reported that a low dose of ibotenic acid (IBO), which has no effect on neuronal survival, significantly potentiates Abeta-induced neurotoxicity in vivo. We examined Abeta-induced neurotoxicity in the absence and presence of IBO in cultured hippocampal slices prepared from 6- or 7-day-old rats and primary neurons obtained from embryonic day 18 rats. The cell death was assayed by propidium iodide staining (slice cultures) or MTT reduction (primary cultures). We also investigated effect of S-allyl-L-cysteine (SAC), a component of aged garlic extract, on cell death induced by Abeta in combination with IBO (Abeta+IBO). In slice cultures, little neurotoxicity was observed by treatment of Abeta 25 or 50 muM alone. IBO (30 muM) alone exhibited slight neuronal death in CA1 and CA3 regions. Significant neuronal death was observed in all the pyramidal cell layer and dentate gyrus at 65 muM and higher concentrations. Abeta (25 muM)+IBO (30 muM) induced severer cell death than IBO (30 muM) alone did. This synergistic effect was also observed in cultured primary neurons. SAC protected hippocampal neurons from cell death induced by Abeta+IBO. These results suggest that Abeta+IBO induces drastic cell death, and that SAC has inhibitory effect on this cell death in slice cultures.

L57 ANSWER 30 OF 31 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:547768 BIOSIS <<LOGINID::20070104>>
DOCUMENT NUMBER: PREV200100547768
TITLE: Alteration of sphingolipid/cholesterol metabolism and its consequence in early Abeta deposition and AD pathogenesis.
AUTHOR(S): Yang, A. [Reprint author]; ***Saito, M.*** [Reprint author]; Dunlop, D. [Reprint author]; McGrath, E. [Reprint author]; Ditaranto, K. [Reprint author]
CORPORATE SOURCE: Dementia Res Prgm, Nathan Kline Institute, Orangeburg, NY, USA
SOURCE: Society for Neuroscience Abstracts, (2001) Vol. 27, No. 2, pp. 1517. print.
Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001.
ISSN: 0190-5295.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Nov 2001
Last Updated on STN: 25 Feb 2002

AB Increasing evidence suggests that markers of pathological aging and membrane damage are critical steps in AD pathogenesis and these cellular injury markers could lead to the acceleration of amyloid deposition. Recently, we have established an in vitro pathological aging model which accentuates accumulation of lipofuscin when cultured neurons are treated with certain lysosomotropic detergents. Our preliminary results suggest that intracellular accumulation of lysosomotropic detergents leads to three major types of membrane disruption reminiscent of early AD: 1) Alteration of sphingolipids and cholesterol metabolism, 2) Increased size of endosomal/lysosomal compartments, 3) Loss of synapses and retraction of neurites. The changes in lipid metabolism and membrane damage on Abeta clearance have also been examined. Pretreatment of mixed astroglia culture with non-lethal concentrations of lysosomotropic detergents leads to a dramatic reduction of Abeta internalization. High performance thin layer chromatography/mass spectrometry analyses of total lipids further indicate that there is a direct correlation between the increase of sphingolipids/cholesterol ester contents and the reduction of intracellular Abeta suggesting that the alteration of lipid composition and membrane pathology plays an essential role in Abeta metabolism. Taken together, our observations suggest that pathological aging and intracellular accumulation of "undigested" aggregates, such as lipofuscin or insoluble Abeta, can directly cause the abnormal accumulation of sphingolipids/cholesterol which subsequently leads to formation of protease-resistant Abeta aggregates and neurodegeneration.

L57 ANSWER 31 OF 31 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:87718 BIOSIS <<LOGINID::20070104>>
DOCUMENT NUMBER: PREV200100087718
TITLE: Mutant-presenilin 2-transgenic mice: a large increase in the levels of Abeta42 is presumably associated with the low-density membrane domain that contains decreased levels of glycerophospholipids and sphingomyelin.
AUTHOR(S): Sawamura, N. [Reprint author]; Morishima-Kawashima, M.; Waki, H.; Kobayashi, K.; Kuramochi, T.; Frosch, M. P.; Ding, K.; ***Ito, M.***; Oyama, F.; Kim, T. W.; Tanzi, R. E.; Ando, S.; Ihara, Y.
CORPORATE SOURCE: Univ. of Tokyo, Tokyo, Japan
SOURCE: Society for Neuroscience Abstracts, (2000) Vol. 26, No.

Structure attributes must be viewed using STN Express query preparation.

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                RACT)/RL
L12           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 (L)(THU OR PKT OR PAC OR
                BAC OR DMA)/RL
L13       24506 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "ALZHEIMER'S DISEASE"+OLD/CT
L14       42816 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ALZHEIMER?
L15           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND (L13 OR L14)
L16          19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L9 OR L10 OR L11 OR L12 OR
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L16 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:14361 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 142:113905
TITLE: Preparation of heterocyclic methyl sulfone derivatives as β-amyloid protein secretion and production inhibitors
INVENTOR(S): Kubota, Hideki; Yasukouchi, Takanori; Miyauchi, Satoru; Motoki, Kayoko; Saito, Masanori; Iimori, Hitoshi
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 345 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000798	A1	20050106	WO 2004-JP9132	20040629
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004251987	A1	20050106	AU 2004-251987	20040629
CA 2526487	A1	20050106	CA 2004-2526487	20040629
EP 1640366	A1	20060329	EP 2004-746601	20040629
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1812964	A	20060802	CN 2004-80016999	20040629
NO 2005005921	A	20060124	NO 2005-5921	20051213
US 2006241302	A1	20061026	US 2005-561838	20051222
PRIORITY APPLN. INFO.:			JP 2003-187796 A	20030630
			JP 2004-99151 A	20040330
			WO 2004-JP9132 W	20040629

1-2, pp. Abstract No.-277.4. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Feb 2001
Last Updated on STN: 12 Feb 2002

AB The N141I mutation in presenilin (PS) 2 is tightly linked with Volga German familial Alzheimer's disease. We have generated transgenic mouse lines overexpressing human wild-type or mutant PS2 to obtain insight into its effect on ***amyloid beta***-protein (Abeta) levels in brain. Abeta40 and Abeta42 levels in Tris-saline insoluble, guanidine hydrochloride-solubilized fraction were quantitated by two-site EIA. The Abeta42 levels in the brains of mutant PS2 transgenic mice were markedly higher than those of wild-type PS2 transgenic mice or nontransgenic mice. To investigate the origin of the insoluble Abeta42, we prepared the detergent-insoluble, low-density membrane fraction. This fraction obtained from mutant-PS2-transgenic mice contained remarkably increased levels of Abeta42 and significantly low levels of glycerophospholipids and sphingomyelin. This unexpected finding suggests that a large increase in the levels of Abeta42 in mutant-PS2-mice is presumably induced through alterations of the lipid composition in the low-density membrane domain in the brain.

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

OTHER SOURCE(S): MARPAT 142:113905

AB The title compds. R1R2R4CXR3 (R1 represents an optionally substituted heterocyclic group; R2 represents an optionally substituted cyclic hydrocarbon group or optionally substituted heterocyclic group; R3 represents an optionally substituted cyclic hydrocarbon group or optionally substituted heterocyclic group; R4 represents hydrogen or C1-6 alkyl; and X represents S, SO, or SO2), N-oxides thereof, S-oxides thereof, salts thereof, or solvates thereof are prepared 2-[[(4-Chlorophenyl)sulfonyl](cyclohexyl)methyl]-1,4-difluorobenzene was prepared in several steps from 2,5-difluorobenzyl alc. and 4-chlorobenzenethiol. In an in vitro assay for β-amyloid protein production inhibiting activity, compds. of this invention showed IC50 values of ≤ 5 nM to 500 nM.

IC ICM C07C317-14
ICS C07D239-26; C07D211-20; C07D211-76; C07D213-87; C07D213-83; C07D213-48; C07D213-79; C07D213-81; C07D213-75; C07D213-73; C07D213-76; C07D213-77; C07D213-57; C07D213-36; C07D213-80; C07D213-89; C07D213-61; C07D213-74; C07D213-42

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1

IT ***Alzheimer's disease***
Anti-***Alzheimer***'s agents
Down's syndrome
Human
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT ***820223-62-9P 820223-64-1P***
RL: ***PAC (Pharmacological activity)***; PUR (Purification or recovery); SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT ***820223-60-7P***
RL: ***PAC (Pharmacological activity)***; RCT (Reactant); SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; ***RACT (Reactant or reagent)*** ; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT 558462-64-9P 558462-65-0P 558462-66-1P 558462-67-2P 558462-78-5P
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558462-84-3P ***558462-85-4P*** 558462-86-5P 558462-87-6P
558462-88-7P 558462-93-4P 558462-94-5P 558462-95-6P 558462-96-7P
558464-28-1P 558464-29-2P 558464-30-5P 558464-31-6P 558464-32-7P
558464-69-0P 558464-71-4P 558464-72-5P 558464-73-6P 558464-74-7P
558464-75-8P 558464-76-9P 558464-77-0P 558464-78-1P 558464-79-2P
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RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT ***820224-42-8P 820224-43-9P 820224-44-0P***
820224-45-1P 820224-46-2P 820224-47-3P
820224-48-4P 820224-49-5P 820225-72-7P
RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT 57-14-7, 1,1-Dimethylhydrazine 67-56-1, Methanol, reactions 74-88-4, Methyl iodide, reactions 75-36-5, Acetyl chloride 75-65-0, tert-Butanol, reactions 79-22-1, Methyl chlorocarbonate 79-44-7,

N,N-Dimethylcarbamoyl chloride 96-41-3, Cyclopentanol 96-50-4, Thiazol-2-ylamine 100-46-9, Benzylamine, reactions 106-52-5, 1-Methylpiperidin-4-ol 106-54-7, 4-Chlorobenzenethiol 107-21-1, Ethylene glycol, reactions 108-24-7, Acetic anhydride 108-93-0, Cyclohexanol, reactions 109-01-3, N-Methylpiperazine 109-04-6, 2-Bromopyridine 109-83-1, Methylaminoethanol 109-90-0, Ethylisocyanate 110-70-3, N,N'-Dimethylethylenediamine 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-95-5 123-90-0, Thiomorpholine 124-40-3, Dimethylamine, reactions 124-63-0, Methanesulfonyl chloride 140-89-6, O-Ethyl dithiocarbonate potassium salt 141-43-5, 2-Aminoethanol, reactions 358-23-6, Trifluoromethanesulfonic anhydride 367-22-6, 4-Chloro-3-fluoroaniline 371-42-6, 4-Fluorobenzenethiol 399-94-0, 1-Bromo-2,5-difluorobenzene 506-59-2, Dimethylamine hydrochloride 530-62-1, 1,1'-Carbonyldiimidazole 593-56-6, O-Methylhydroxylamine hydrochloride 623-33-6 624-28-2, 2,5-Dibromopyridine 626-55-1, 3-Bromopyridine 626-60-8, 3-Chloropyridine 675-20-7, 2-Piperidinone 696-63-9, 4-Methoxybenzenethiol 825-83-2, 4-Trifluoromethylbenzenethiol 872-49-1, 5-Chloro-1-methylimidazole 872-85-5, 4-Pyridinecarboxaldehyde 929-06-6, 2-(2-Aminoethoxy)ethanol 1068-55-9, Isopropylmagnesium chloride 1072-72-6, Tetrahydrothiopyran-4-one 1072-98-6, 2-Amino-5-chloropyridine 1076-38-6, 4-Hydroxycoumarin 1080-44-0, N-p-Toluenesulfonylglycine 1118-68-9, N,N-Dimethylglycine 1194-02-1, 4-Fluorobenzonitrile 1622-32-8, 2-Chloroethanesulfonyl chloride 1632-83-3, 1-Methylbenzimidazole 1633-82-5, 3-Chloropropanesulfonyl chloride 1688-95-5, 4-Methylpiperazine-1-sulfonyl chloride 1722-12-9, 2-Chloropyrimidine 1750-42-1, Isoxazol-3-ylamine 1822-51-1, 4-Chloromethylpyridine hydrochloride 2002-24-6, Ethanolamine hydrochloride 2038-03-1, 4-(2-Aminoethyl)morpholine 2081-44-9, Tetrahydropyran-4-ol 2361-27-5, 2-Thiophenecarbohydrazide 2605-67-6, Methyl triphenylphosphoranylideneacetate 2646-90-4, 2,5-Difluorobenzaldehyde 2706-56-1, 2-Pyridin-2-ylethylamine 2766-74-7, 5-Chlorothiophene-2-sulfonyl chloride 3034-53-5, 2-Bromothiazole 3218-02-8, Aminomethylcyclohexane 3430-17-9, 2-Bromo-3-methylpyridine 3510-66-5, 2-Bromo-5-methylpyridine 3731-51-9, Pyridin-2-ylmethylamine 3731-53-1, 4-Aminomethylpyridine 4104-45-4, 3-Methylthiopropylamine 4595-59-9, 5-Bromopyrimidine 4727-72-4, 1-Benzylpiperidin-4-ol 4755-77-5, Ethyl chloroglyoxylate 4926-28-7, 2-Bromo-4-methylpyridine 5036-48-6, 3-(Imidazol-1-yl)propylamine 5332-73-0, 3-Methoxypropylamine 5350-93-6, 5-Amino-2-chloropyridine 5382-16-1, 4-Hydroxypiperidine 5470-11-1 5763-61-1, 3,4-Dimethoxybenzylamine 6321-23-9, 4-Methylcyclohexylamine 6419-36-9, 3-Pyridylacetic acid hydrochloride 6602-32-0, 2-Bromo-3-hydroxypyridine 7663-77-6, 1-(3-Aminopropyl)pyrrolidin-2-one 7664-41-7, Ammonia, reactions 7677-24-9, Trimethylsilylnitrile 7693-46-1, 4-Nitrophenyl chloroformate 10040-95-6, 1-(4-Methoxyphenyl)imidazole 13258-63-4, 4-(2-Aminoethyl)pyridine 13360-57-1, N,N-Dimethylsulfamoyl chloride 13528-93-3, 1,2-Bis(chlorodimethylsilyl)ethane 13726-14-2, 4-Chloro-3-methoxyaniline 14752-66-0, Sodium 4-chlorobenzenesulfinate 16110-09-1, 2,5-Dichloropyridine 16179-97-8, 2-Pyridylacetic acid hydrochloride 17117-24-7 18107-18-1, Trimethylsilyldiazomethane 18162-48-6, tert-Butylchlorodimethylsilane 18542-42-2, 2-Methylthioethylamine 23356-96-9, (S)-2-Pyrrolidinemethanol 24424-99-5, Di-tert-butyl dicarbonate 26386-88-9, Diphenylphosphoryl azide 26628-22-8, Sodium azide 34199-87-6 35856-62-3, Piperidinesulfonyl chloride 36801-01-1, 4-Mercaptobenzonitrile 40473-01-6, 2-Bromo-5-chloropyridine 51779-32-9, Di-tert-butyl iminodicarboxylate 51865-84-0 55338-73-3, 5-Amino-2-cyanopyridine 55896-93-0, Ethyl chlorosulfonylacetate 56542-67-7, 3-

Cyanobenzenesulfonyl chloride 57260-71-6, 1-tert-Butoxycarbonylpiperazine 57260-73-8, Tert-butyl N-(2-aminoethyl)carbamate 58479-61-1, tert-Butylchlorodiphenylsilane 58620-93-2 59084-16-1, 1-Acetyl-4-piperidinecarbonyl chloride 60811-24-7, 3,4-Difluorobenzenethiol 75178-96-0, Tert-butyl (3-aminopropyl)carbamate 75853-20-2, 2,5-Difluorobenzyl alcohol 82671-06-5, 2,6-Dichloro-5-fluoronicotinic acid 84228-93-3 85117-99-3, 2-Bromomethyl-1,4-difluorobenzene 86608-70-0 87120-72-7, tert-Butyl 4-aminopiperidine-1-carboxylate 89031-84-5 99662-46-1 106877-33-2, 6-Trifluoromethylpyridin-3-ylamine 109384-19-2, tert-Butyl 4-hydroxy-1-piperidinecarboxylate 130820-89-2 137049-00-4, 1-Methyl-1H-imidazole-4-sulfonyl chloride 329206-68-0 558461-84-0 558466-12-9, 6-Chloro-3-pyridinethiol ***820225-20-5***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT 2404-97-9P 15231-41-1P 24100-18-3P 29683-23-6P 40771-41-3P
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558462-75-2P 558462-76-3P 558462-77-4P 558462-89-8P 558462-90-1P
558462-91-2P 558462-92-3P 558464-68-9P 558464-70-3P
558464-87-2P 558464-89-4P 558465-40-0P
558465-42-2P 558465-45-5P 558465-94-4P 558465-96-6P
558465-97-7P 558465-98-8P 558465-99-9P 558466-00-5P 558466-01-6P
558466-02-7P 558466-03-8P 558466-04-9P 558466-05-0P 558466-06-1P
558466-11-8P 558466-23-2P 558466-24-3P 558466-25-4P 558466-27-6P
558466-28-7P 558466-30-1P 791583-29-4P 820224-50-8P 820224-51-9P
820224-52-0P 820224-53-1P 820224-54-2P 820224-55-3P 820224-56-4P
820224-57-5P 820224-58-6P 820224-59-7P 820224-60-0P 820224-62-2P
820224-63-3P ***820224-64-4P 820224-65-5P***
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820224-69-9P 820224-70-2P 820224-71-3P
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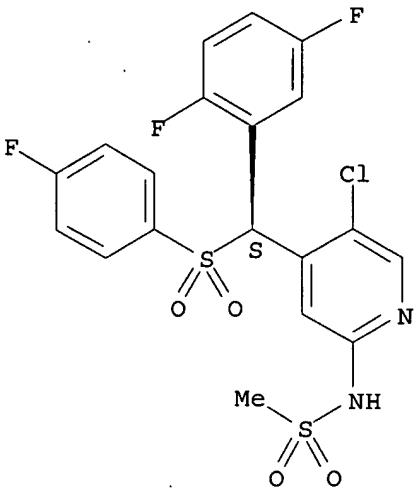
820225-15-8P 820225-16-9P 820225-17-0P
820225-18-1P 820225-19-2P 820225-21-6P ***820225-22-7P***
820225-23-8P
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

IT ***820223-62-9P 820223-64-1P***
RL: ***PAC (Pharmacological activity)***; PUR (Purification or recovery); SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)

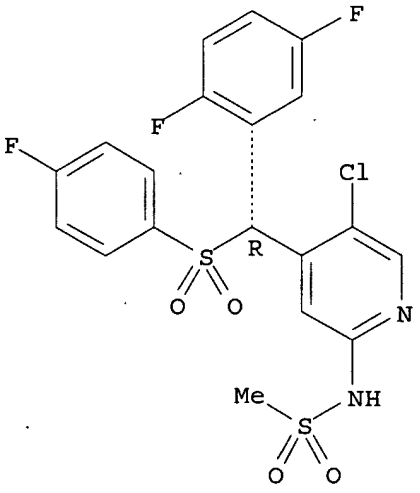
RN 820223-62-9 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[(S)-(2,5-difluorophenyl)[(4-fluorophenyl)sulfonyl]methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

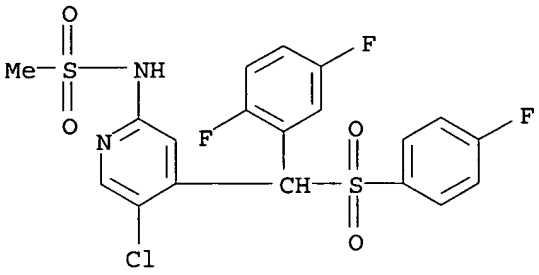


RN 820223-64-1 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[(R)-(2,5-difluorophenyl)[(4-fluorophenyl)sulfonyl]methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT ***820223-60-7P***
RL: ***PAC (Pharmacological activity)***; RCT (Reactant); SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)
RN 820223-60-7 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)sulfonyl]methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



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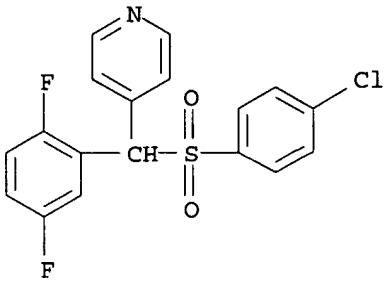
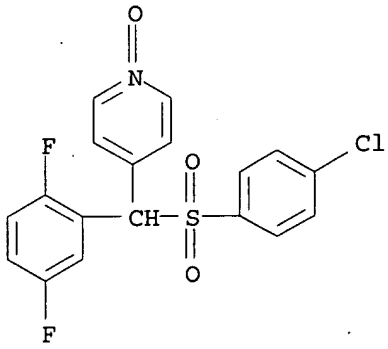
820224-47-3P 820224-48-4P 820224-49-5P
820225-72-7P
RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein

secretion and production inhibitors)

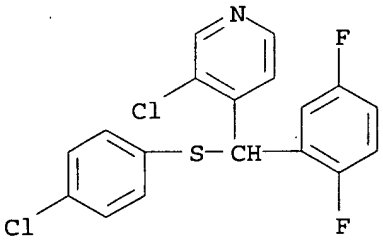
RN 558462-85-4 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



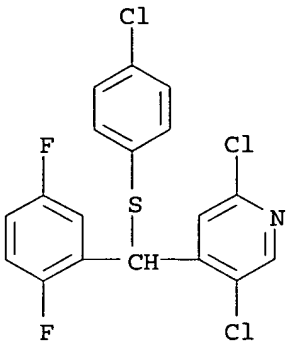
RN 558464-81-6 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-, 1-oxide (9CI) (CA INDEX NAME)



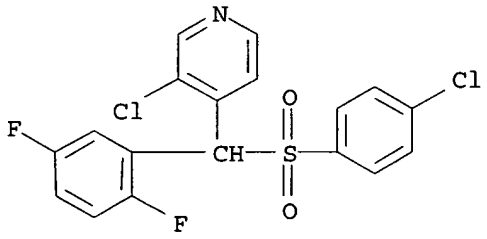
RN 558464-82-7 HCAPLUS
CN Pyridine, 3-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



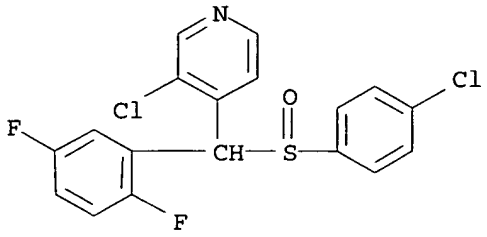
RN 558464-83-8 HCAPLUS
CN Pyridine, 2,5-dichloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



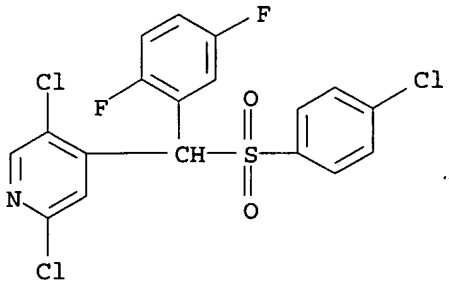
RN 558464-84-9 HCAPLUS
CN Pyridine, 3-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



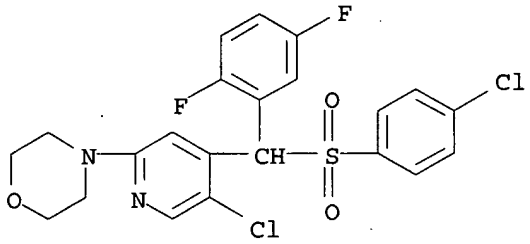
RN 558464-85-0 HCAPLUS
CN Pyridine, 3-chloro-4-[[(4-chlorophenyl)sulfinyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



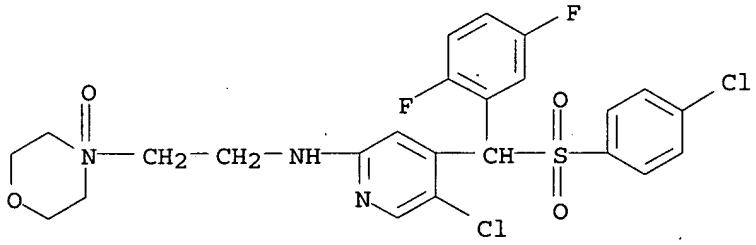
RN 558464-86-1 HCAPLUS
CN Pyridine, 2,5-dichloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



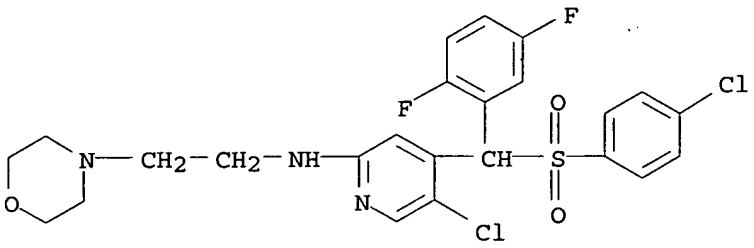
RN 558464-88-3 HCAPLUS
CN Morpholine, 4-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



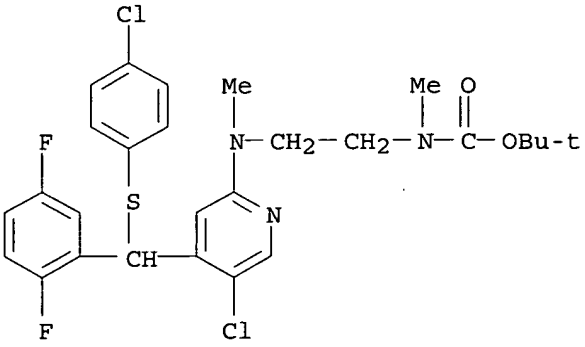
RN 558464-90-7 HCAPLUS
CN 4-Morpholineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 4-oxide (9CI) (CA INDEX NAME)



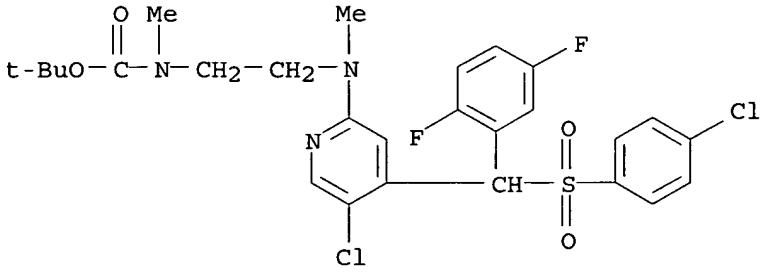
RN 558465-36-4 HCAPLUS
CN 4-Morpholineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



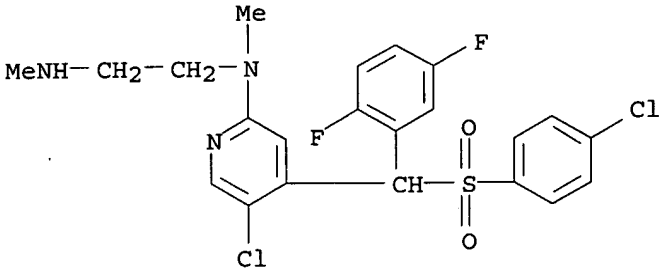
RN 558465-37-5 HCAPLUS
CN Carbamic acid, [2-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 558465-38-6 HCAPLUS
CN Carbamic acid, [2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

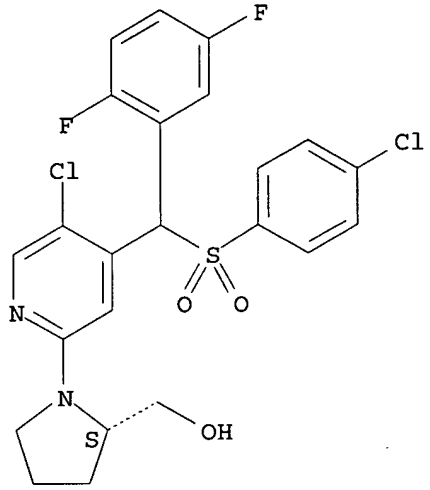


RN 558465-39-7 HCAPLUS
CN 1,2-Ethanediamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-N,N'-dimethyl- (9CI) (CA INDEX NAME)

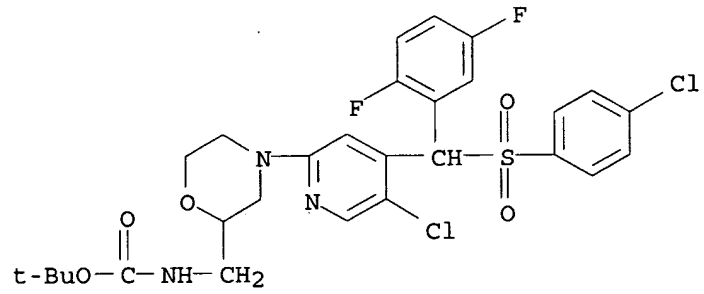


RN 558465-41-1 HCAPLUS
CN 2-Pyrrolidinemethanol, 1-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

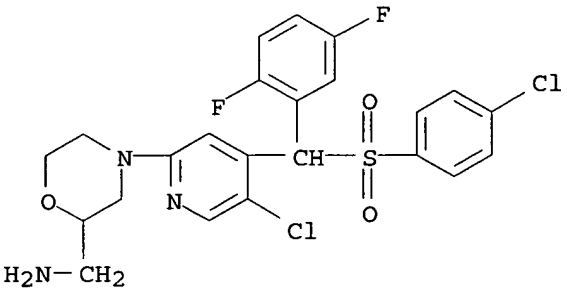


RN 558465-43-3 HCAPLUS
CN Carbamic acid, [[4-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-morpholinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

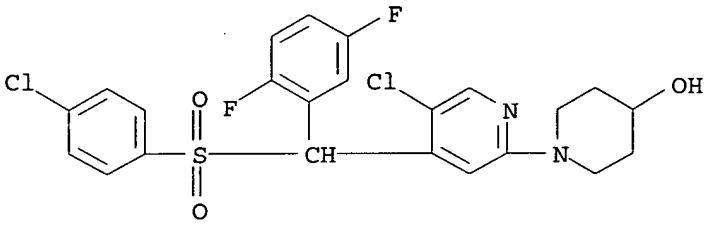


RN 558465-44-4 HCAPLUS

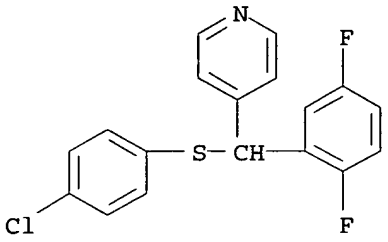
CN 2-Morpholinemethanamine, 4-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



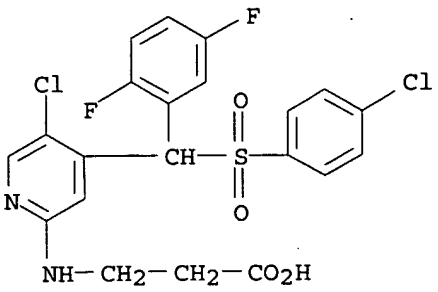
RN 558465-46-6 HCAPLUS
CN 4-Piperidinol, 1-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



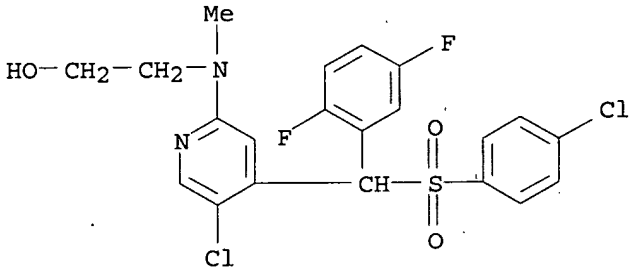
RN 820221-86-1 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



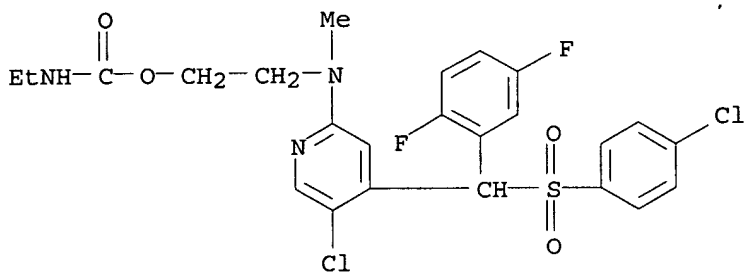
RN 820222-93-3 HCAPLUS
CN β-Alanine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



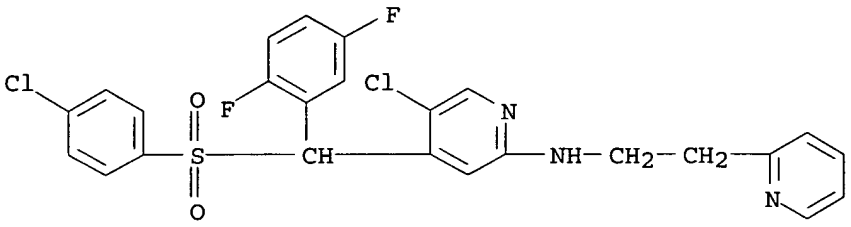
RN 820222-94-4 HCAPLUS
CN Ethanol, 2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]- (9CI) (CA INDEX NAME)



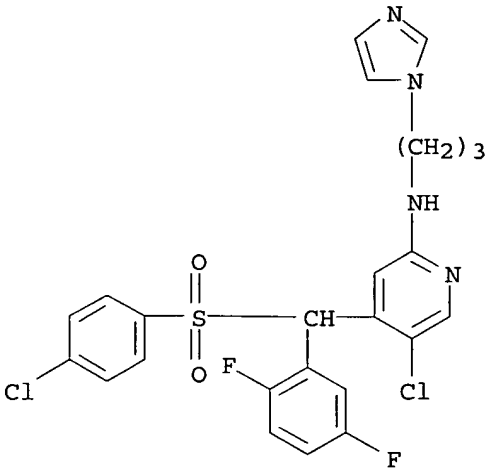
RN 820222-95-5 HCAPLUS
CN Carbamic acid, ethyl-, 2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]ethyl ester (9CI) (CA INDEX NAME)



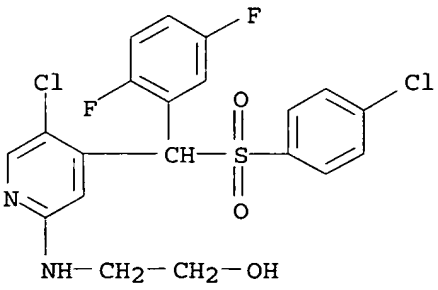
RN 820222-96-6 HCAPLUS
CN 2-Pyridineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



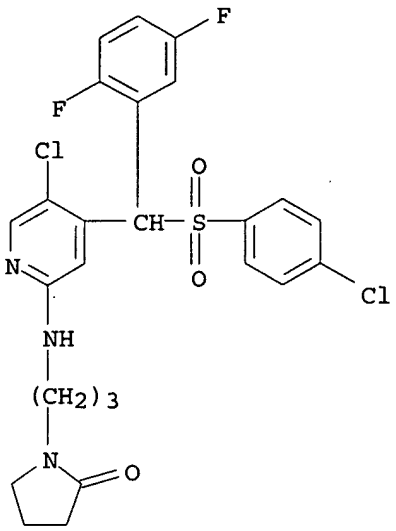
RN 820222-97-7 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-N-[3-(1H-imidazol-1-yl)propyl]- (9CI) (CA INDEX NAME)



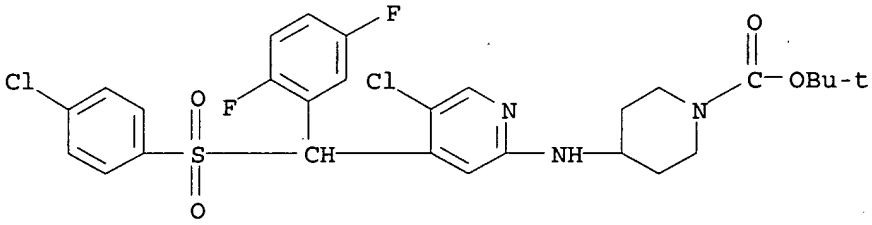
RN 820222-98-8 HCAPLUS
CN Ethanol, 2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]- (9CI) (CA INDEX NAME)



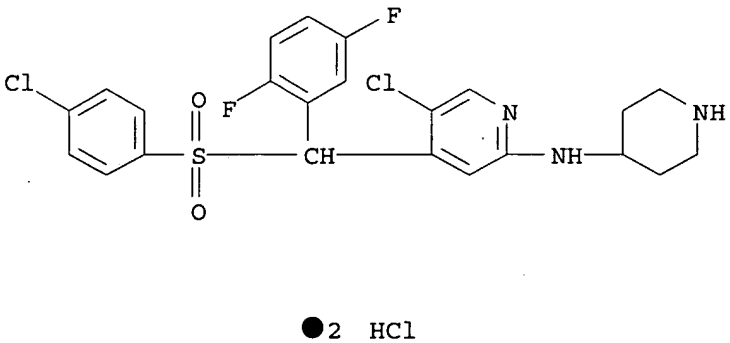
RN 820222-99-9 HCAPLUS
CN 2-Pyrrolidinone, 1-[3-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]propyl]- (9CI) (CA INDEX NAME)



RN 820223-00-5 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

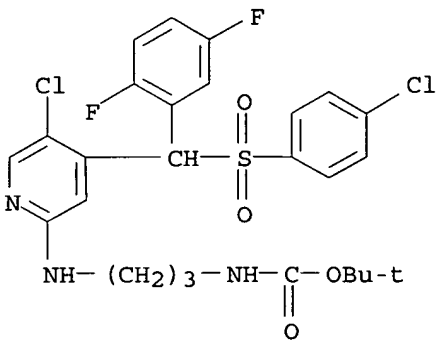


RN 820223-01-6 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-N-4-piperidinyl-, dihydrochloride (9CI) (CA INDEX NAME)

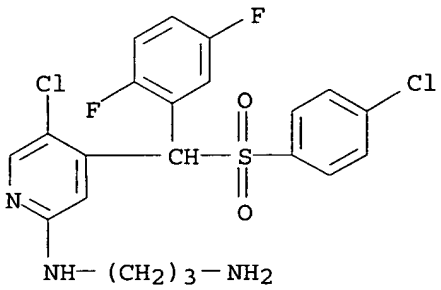


●2 HCl

RN 820223-02-7 HCAPLUS
CN Carbamic acid, [3-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

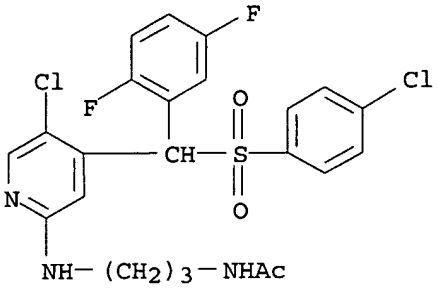


RN 820223-03-8 HCAPLUS
CN 1,3-Propanediamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, dihydrochloride (9CI) (CA INDEX NAME)

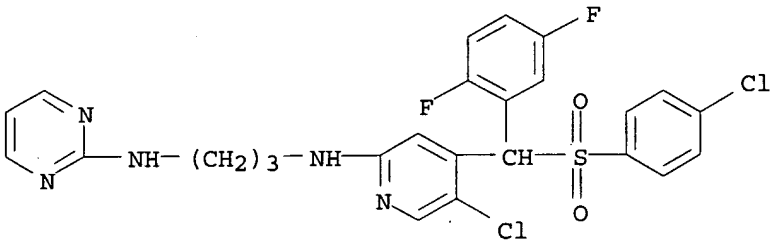


●2 HCl

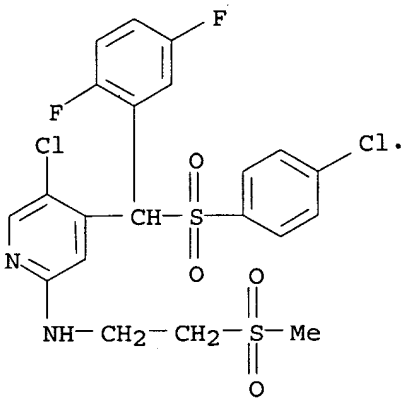
RN 820223-04-9 HCAPLUS
CN Acetamide, N-[3-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]propyl]- (9CI) (CA INDEX NAME)



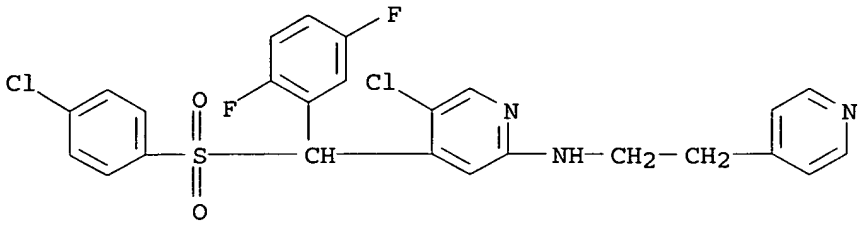
RN 820223-05-0 HCAPLUS
CN 1,3-Propanediamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-N'-2-pyrimidinyl- (9CI) (CA INDEX NAME)



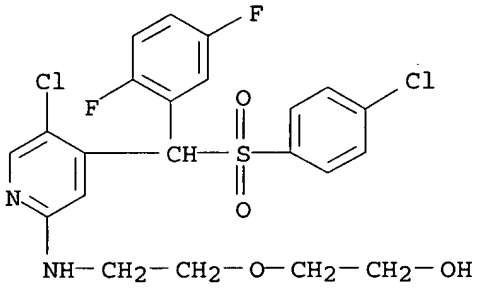
RN 820223-06-1 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-N-[2-(methylsulfonyl)ethyl]- (9CI) (CA INDEX NAME)



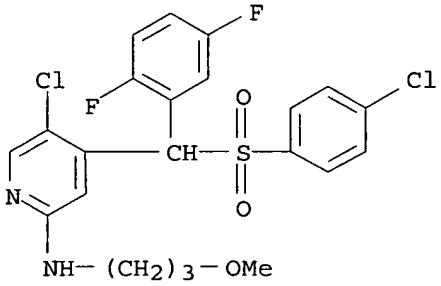
RN 820223-08-3 HCAPLUS
CN 4-Pyridineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



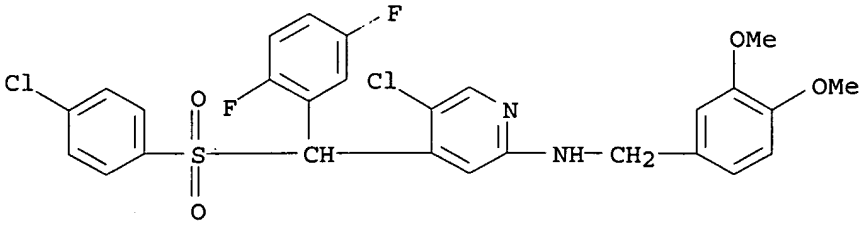
RN 820223-10-7 HCAPLUS
CN Ethanol, 2-[2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



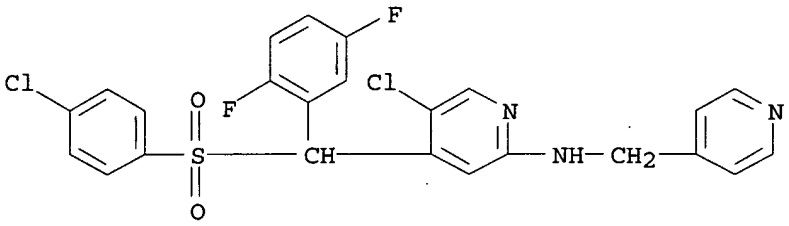
RN 820223-12-9 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-N-(3-methoxypropyl)- (9CI) (CA INDEX NAME)



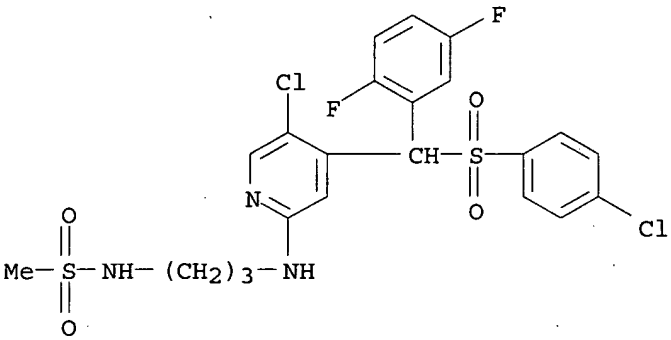
RN 820223-14-1 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-N-[(3,4-dimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



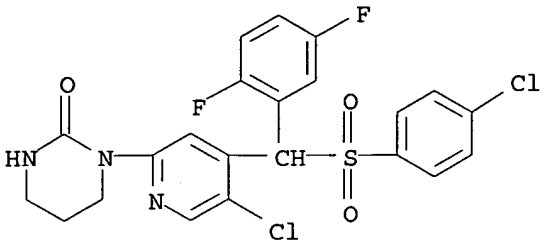
RN 820223-16-3 HCAPLUS
CN 4-Pyridinemethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



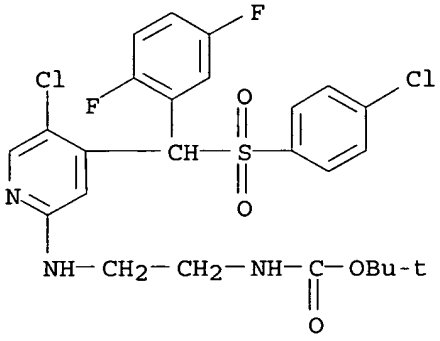
RN 820223-18-5 HCAPLUS
CN Methanesulfonamide, N-[3-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]propyl]- (9CI) (CA INDEX NAME)



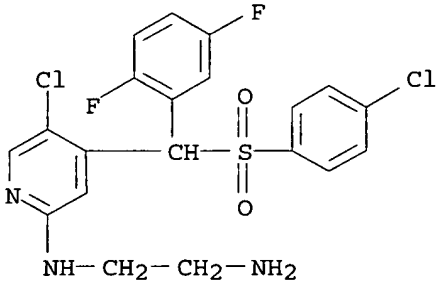
RN 820223-20-9 HCAPLUS
CN 2(1H)-Pyrimidinone, 1-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]tetrahydro- (9CI) (CA INDEX NAME)



RN 820223-22-1 HCAPLUS
CN Carbamic acid, [2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



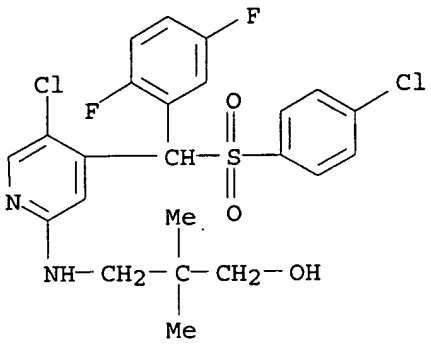
RN 820223-24-3 HCAPLUS
CN 1,2-Ethanediamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, dihydrochloride (9CI) (CA INDEX NAME)



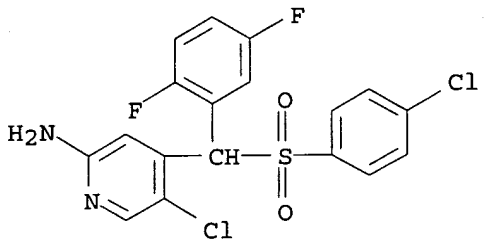
●2 HCl

RN 820223-26-5 HCAPLUS
CN 1-Propanol, 3-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-

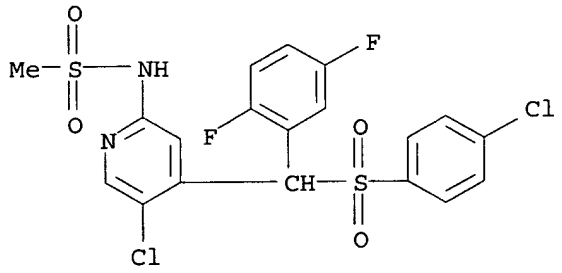
difluorophenyl)methyl]-2-pyridinyl]amino]-2,2-dimethyl- (9CI) (CA INDEX NAME)



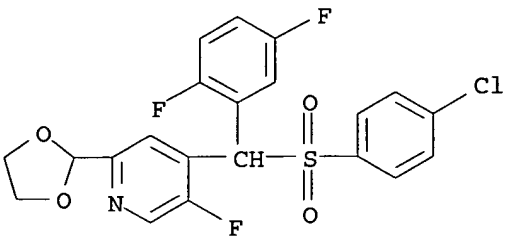
RN 820223-28-7 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



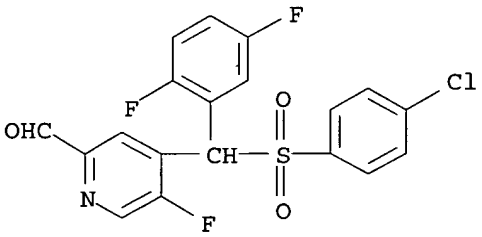
RN 820223-30-1 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



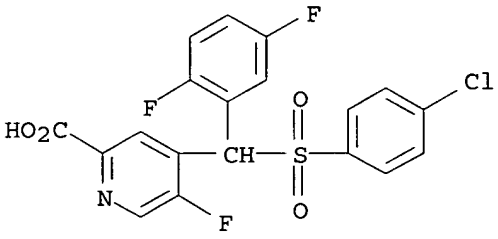
RN 820223-32-3 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-(1,3-dioxolan-2-yl)-5-fluoro- (9CI) (CA INDEX NAME)



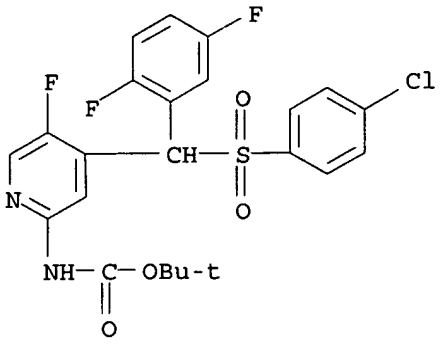
RN 820223-34-5 HCAPLUS
CN 2-Pyridinecarboxaldehyde, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro- (9CI) (CA INDEX NAME)



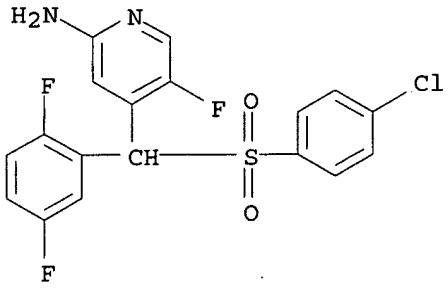
RN 820223-36-7 HCAPLUS
CN 2-Pyridinecarboxylic acid, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro- (9CI) (CA INDEX NAME)



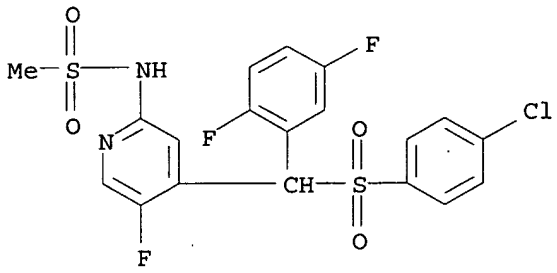
RN 820223-38-9 HCAPLUS
CN Carbamic acid, [4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



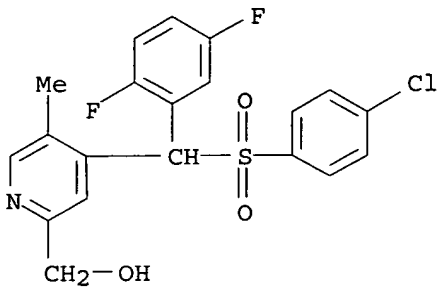
RN 820223-40-3 HCAPLUS
CN 2-Pyridinamine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro- (9CI) (CA INDEX NAME)



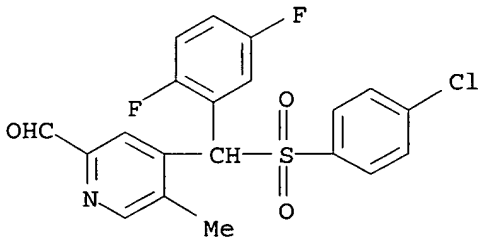
RN 820223-42-5 HCAPLUS
CN Methanesulfonamide, N-[4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro-2-pyridinyl]- (9CI) (CA INDEX NAME)



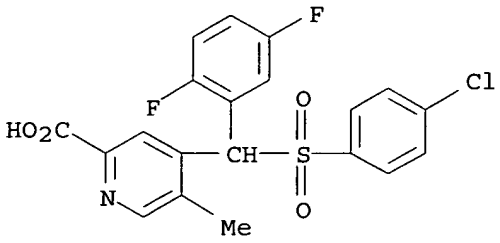
RN 820223-44-7 HCAPLUS
CN 2-Pyridinemethanol, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-methyl- (9CI) (CA INDEX NAME)



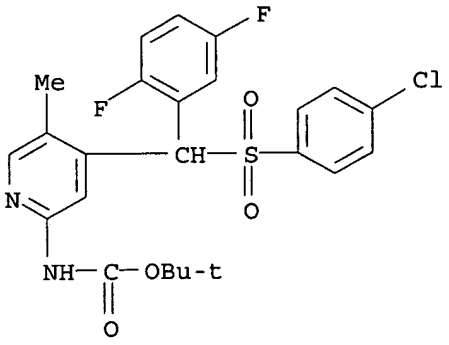
RN 820223-46-9 HCAPLUS
CN 2-Pyridinecarboxaldehyde, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-methyl- (9CI) (CA INDEX NAME)



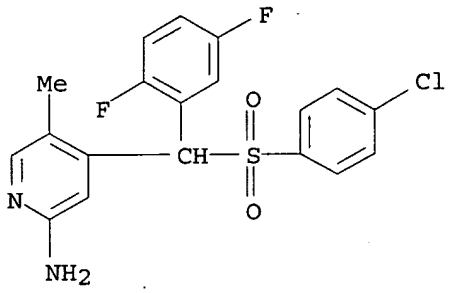
RN 820223-48-1 HCAPLUS
CN 2-Pyridinecarboxylic acid, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-methyl- (9CI) (CA INDEX NAME)



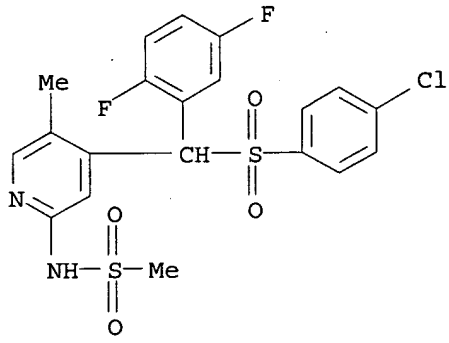
RN 820223-50-5 HCAPLUS
CN Carbamic acid, [4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-methyl-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



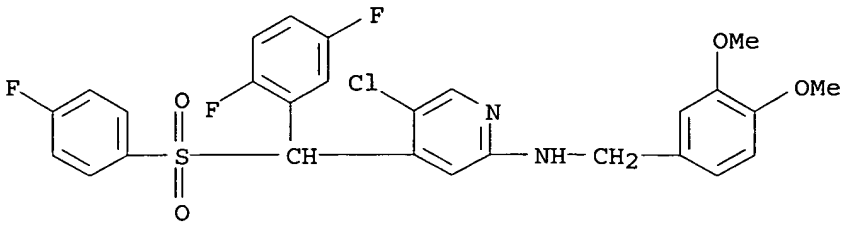
RN 820223-52-7 HCAPLUS
CN 2-Pyridinamine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-methyl- (9CI) (CA INDEX NAME)



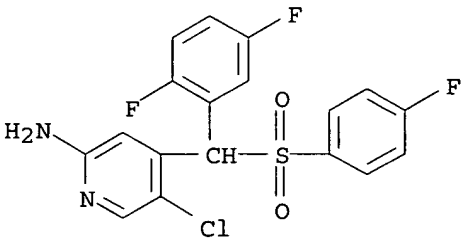
RN 820223-54-9 HCAPLUS
CN Methanesulfonamide, N-[4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-methyl-2-pyridinyl]- (9CI) (CA INDEX NAME)



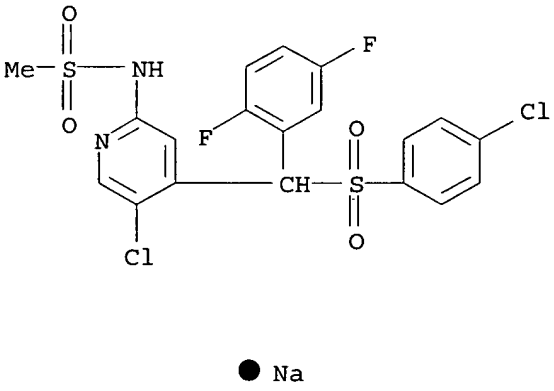
RN 820223-56-1 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)sulfonyl]methyl]-N-[(3,4-dimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



RN 820223-58-3 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)sulfonyl]methyl]- (9CI) (CA INDEX NAME)

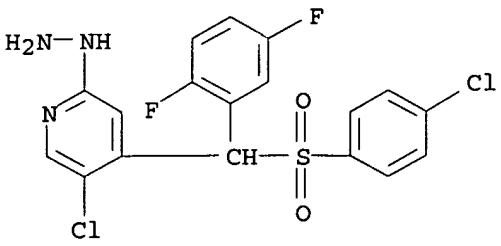


RN 820223-66-3 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, sodium salt (9CI) (CA INDEX NAME)

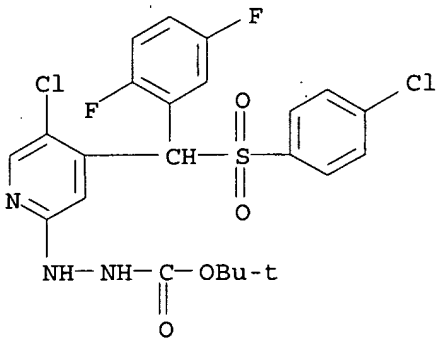


● Na

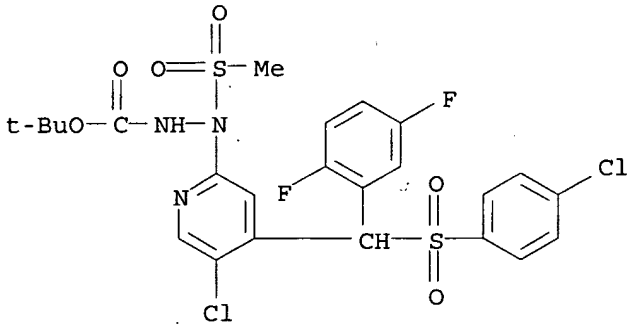
RN 820223-68-5 HCAPLUS
CN 2(1H)-Pyridinone, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-, hydrazone (9CI) (CA INDEX NAME)



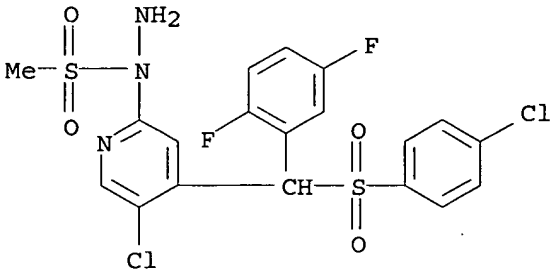
RN 820223-70-9 HCAPLUS
CN Hydrazinecarboxylic acid, 2-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



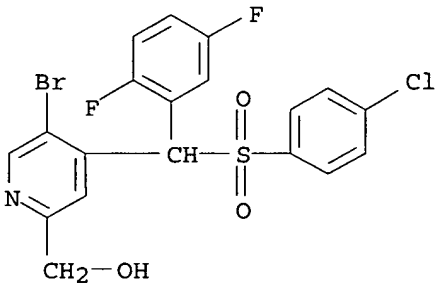
RN 820223-72-1 HCAPLUS
CN Hydrazinecarboxylic acid, 2-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-(methylsulfonyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



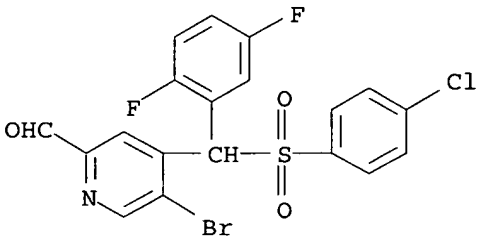
RN 820223-74-3 HCAPLUS
CN Methanesulfonic acid, 1-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)



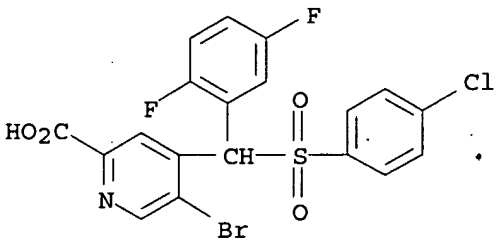
RN 820223-76-5 HCAPLUS
CN 2-Pyridinemethanol, 5-bromo-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



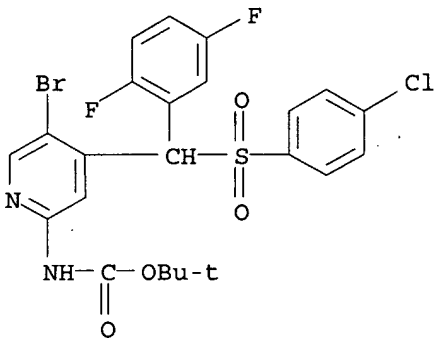
RN 820223-78-7 HCAPLUS
CN 2-Pyridinecarboxaldehyde, 5-bromo-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



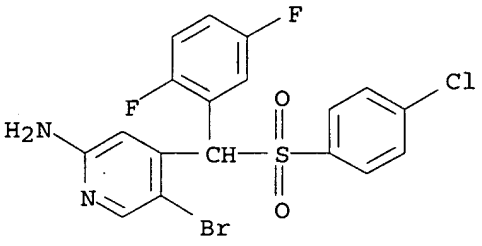
RN 820223-80-1 HCAPLUS
CN 2-Pyridinecarboxylic acid, 5-bromo-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



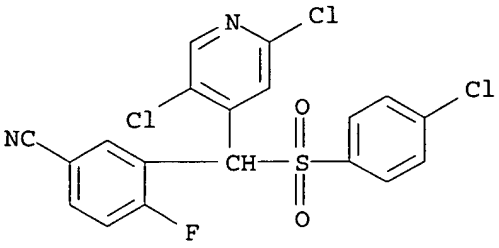
RN 820223-81-2 HCAPLUS
CN Carbamic acid, [5-bromo-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



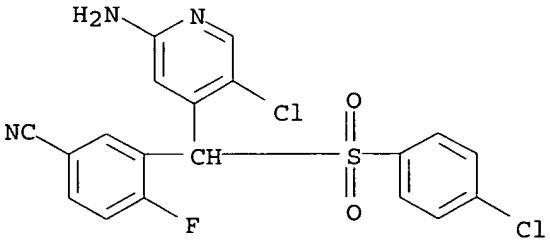
RN 820223-82-3 HCAPLUS
CN 2-Pyridinamine, 5-bromo-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



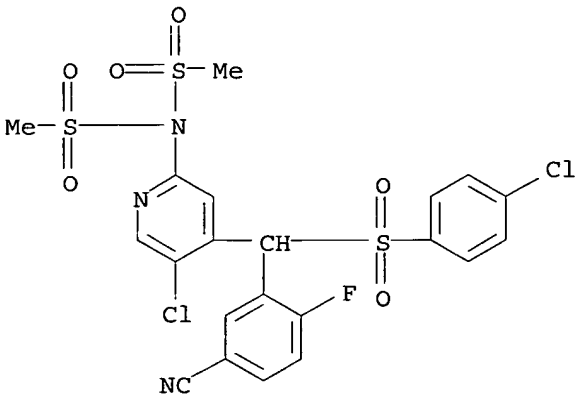
RN 820223-84-5 HCAPLUS
CN Benzonitrile, 3-[[(4-chlorophenyl)sulfonyl](2,5-dichloro-4-pyridinyl)methyl]-4-fluoro- (9CI) (CA INDEX NAME)



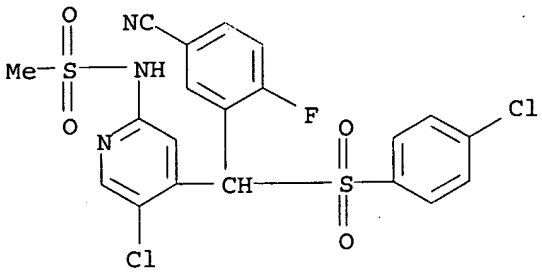
RN 820223-85-6 HCAPLUS
CN Benzonitrile, 3-[(2-amino-5-chloro-4-pyridinyl)[(4-chlorophenyl)sulfonyl]methyl]-4-fluoro- (9CI) (CA INDEX NAME)



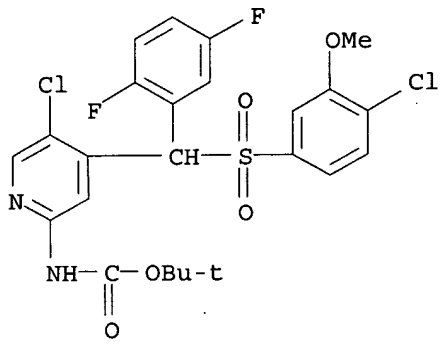
RN 820223-87-8 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](5-cyano-2-fluorophenyl)methyl]-2-pyridinyl]-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



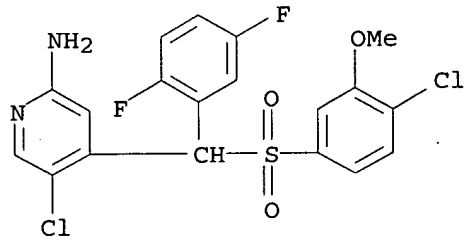
RN 820223-88-9 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](5-cyano-2-fluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



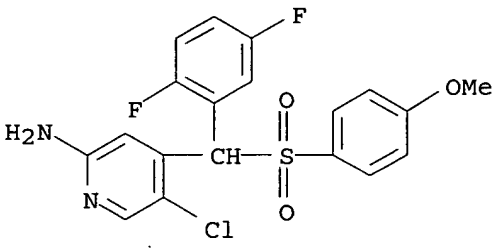
RN 820223-90-3 HCAPLUS
CN Carbamic acid, [5-chloro-4-[[(4-chloro-3-methoxyphenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



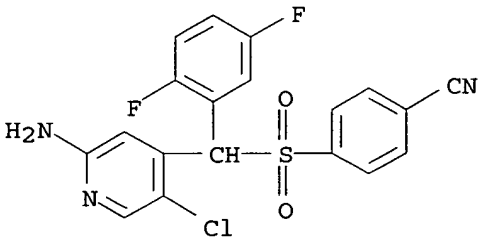
RN 820223-91-4 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chloro-3-methoxyphenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



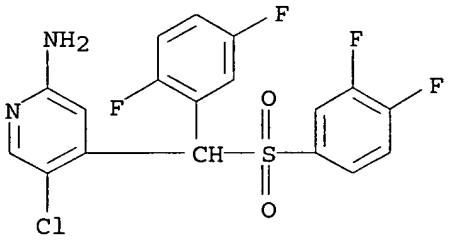
RN 820223-93-6 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[(2,5-difluorophenyl)[(4-methoxyphenyl)sulfonyl]methyl]- (9CI) (CA INDEX NAME)



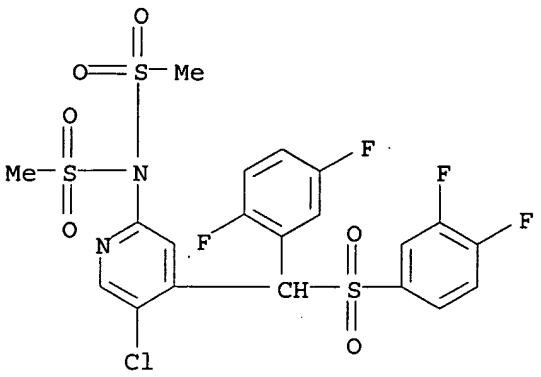
RN 820223-99-2 HCAPLUS
CN Benzonitrile, 4-[[(2-amino-5-chloro-4-pyridinyl)(2,5-difluorophenyl)methyl]sulfonyl]- (9CI) (CA INDEX NAME)



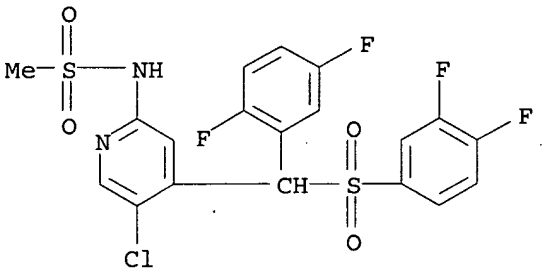
RN 820224-00-8 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[(2,5-difluorophenyl)[(3,4-difluorophenyl)sulfonyl]methyl]- (9CI) (CA INDEX NAME)



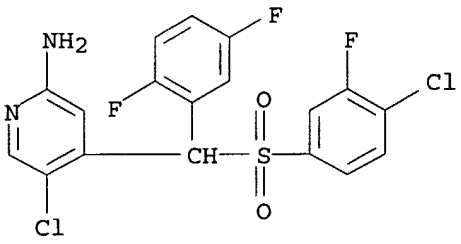
RN 820224-01-9 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[(2,5-difluorophenyl)[(3,4-difluorophenyl)sulfonyl]methyl]-2-pyridinyl]-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



RN 820224-03-1 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[(2,5-difluorophenyl)[(3,4-difluorophenyl)sulfonyl]methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

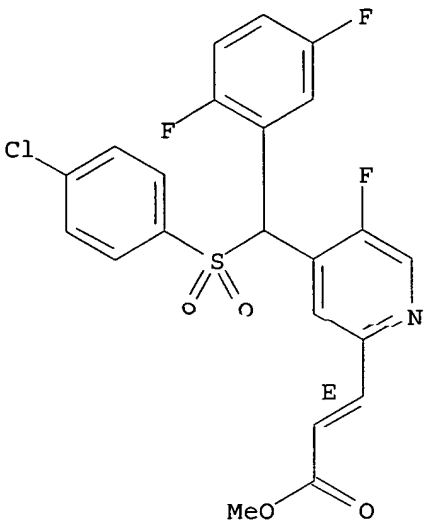


RN 820224-06-4 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chloro-3-fluorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)

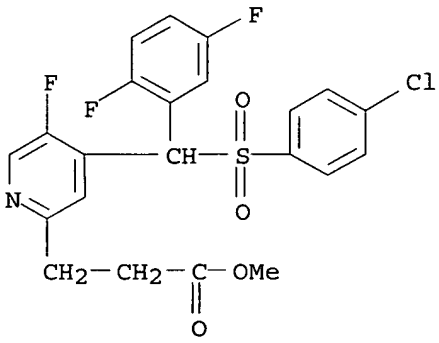


RN 820224-08-6 HCAPLUS
CN 2-Propenoic acid, 3-[4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro-2-pyridinyl]-, methyl ester, (2E)- (9CI) (CA INDEX NAME)

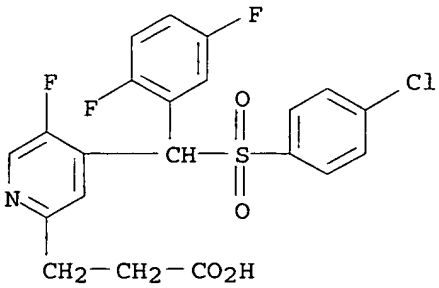
Double bond geometry as shown.



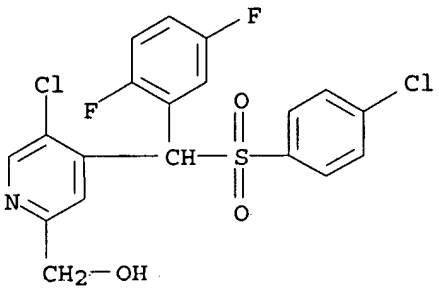
RN 820224-10-0 HCAPLUS
CN 2-Pyridinepropanoic acid, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro-, methyl ester (9CI) (CA INDEX NAME)



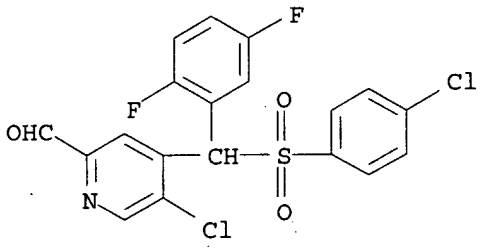
RN 820224-12-2 HCAPLUS
CN 2-Pyridinepropanoic acid, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-5-fluoro- (9CI) (CA INDEX NAME)



RN 820224-13-3 HCAPLUS
CN 2-Pyridinemethanol, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)

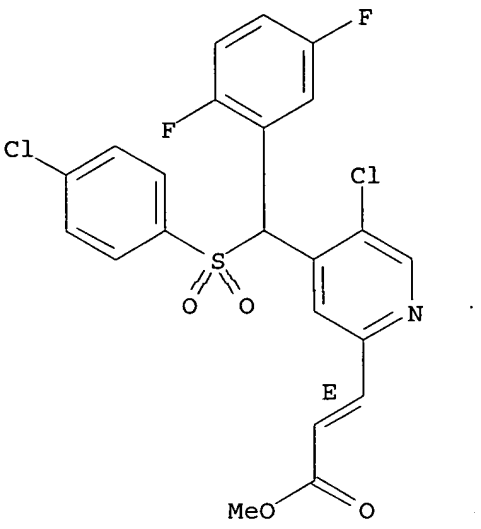


RN 820224-14-4 HCAPLUS
CN 2-Pyridinecarboxaldehyde, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)

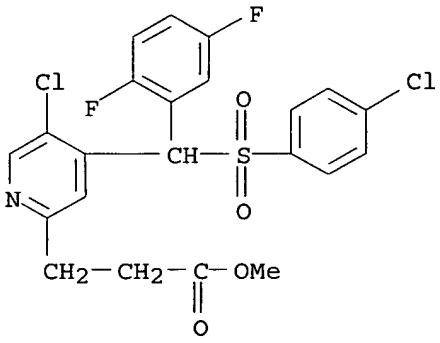


RN 820224-15-5 HCAPLUS
CN 2-Propenoic acid, 3-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, methyl ester, (2E)- (9CI) (CA INDEX NAME)

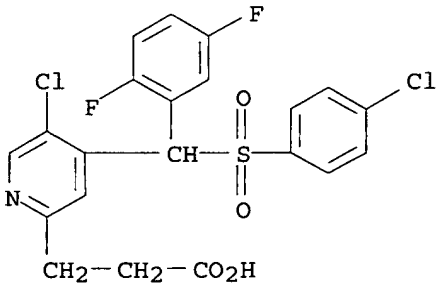
Double bond geometry as shown.



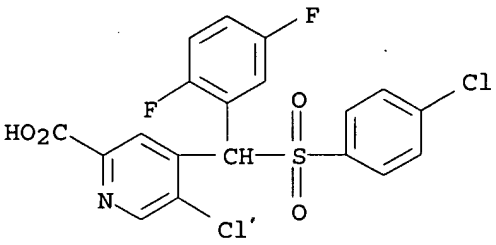
RN 820224-16-6 HCAPLUS
CN 2-Pyridinepropanoic acid, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 820224-17-7 HCAPLUS
CN 2-Pyridinepropanoic acid, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)

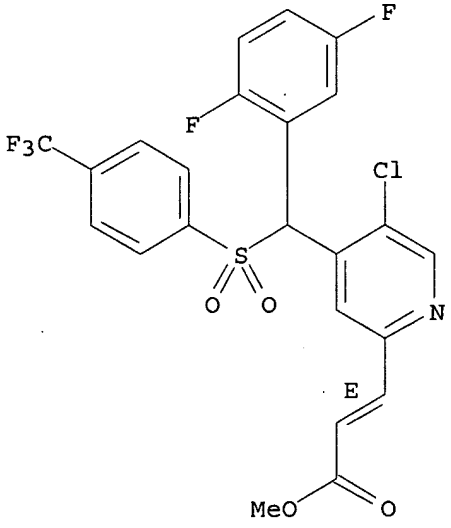


RN 820224-18-8 HCAPLUS
CN 2-Pyridinecarboxylic acid, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)

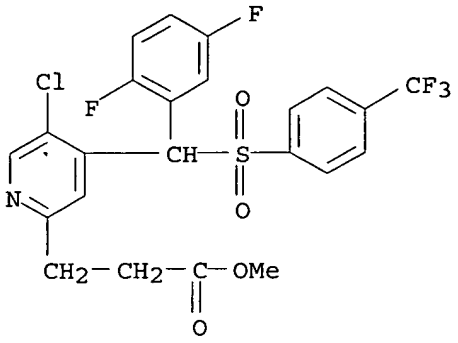


RN 820224-19-9 HCAPLUS
CN 2-Propenoic acid, 3-[5-chloro-4-[(2,5-difluorophenyl)[[4-(trifluoromethyl)phenyl]sulfonyl]methyl]-2-pyridinyl]-, methyl ester, (2E)- (9CI) (CA INDEX NAME)

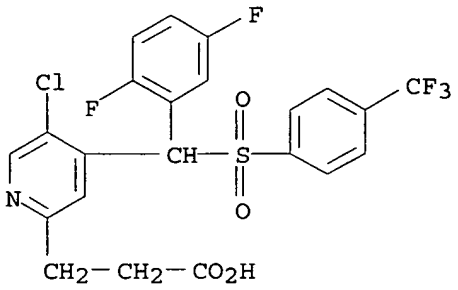
Double bond geometry as shown.



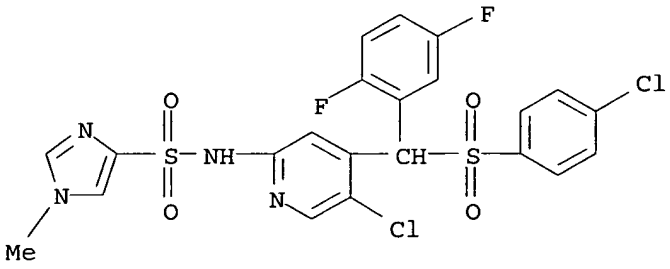
RN 820224-20-2 HCAPLUS
CN 2-Pyridinepropanoic acid, 5-chloro-4-[(2,5-difluorophenyl)[[4-(trifluoromethyl)phenyl]sulfonyl]methyl]-, methyl ester (9CI) (CA INDEX NAME)



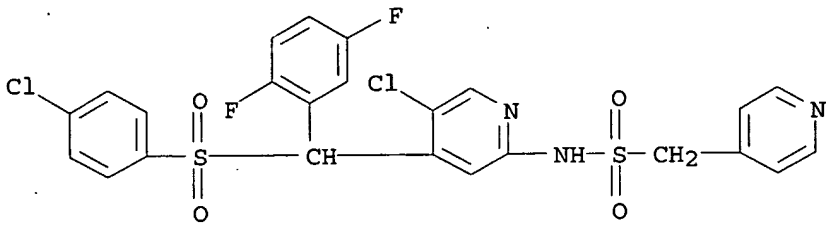
RN 820224-21-3 HCAPLUS
CN 2-Pyridinepropanoic acid, 5-chloro-4-[(2,5-difluorophenyl)[[4-(trifluoromethyl)phenyl]sulfonyl]methyl]- (9CI) (CA INDEX NAME)



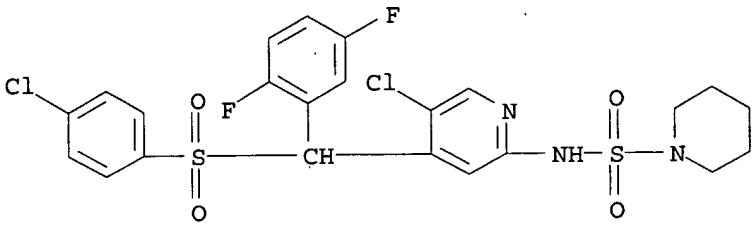
RN 820224-22-4 HCAPLUS
CN 1H-Imidazole-4-sulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-1-methyl- (9CI) (CA INDEX NAME)



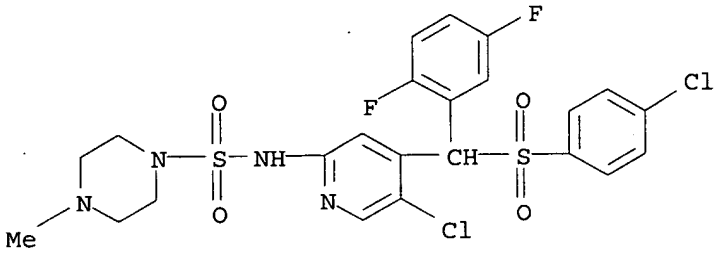
RN 820224-23-5 HCAPLUS
CN 4-Pyridinemethanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



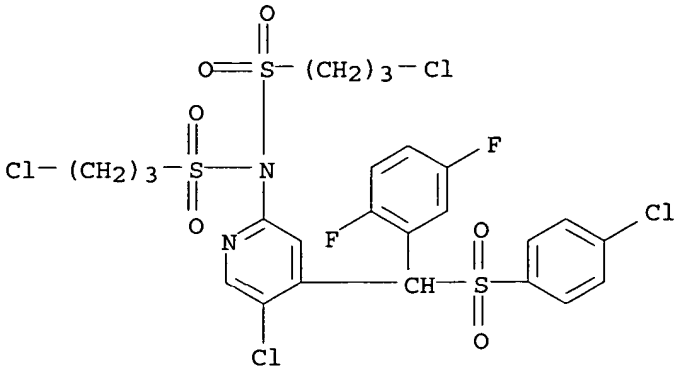
RN 820224-24-6 HCAPLUS
CN 1-Piperidinesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



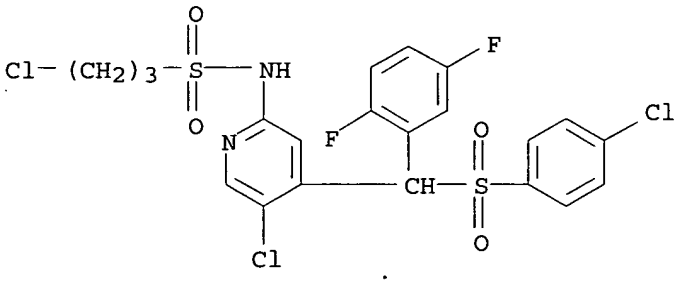
RN 820224-25-7 HCAPLUS
CN 1-Piperazinesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-4-methyl- (9CI) (CA INDEX NAME)



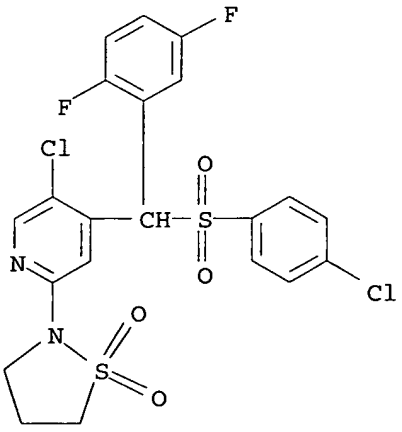
RN 820224-26-8 HCAPLUS
CN 1-Propanesulfonamide, 3-chloro-N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-N-[(3-chloropropyl)sulfonyl]- (9CI) (CA INDEX NAME)



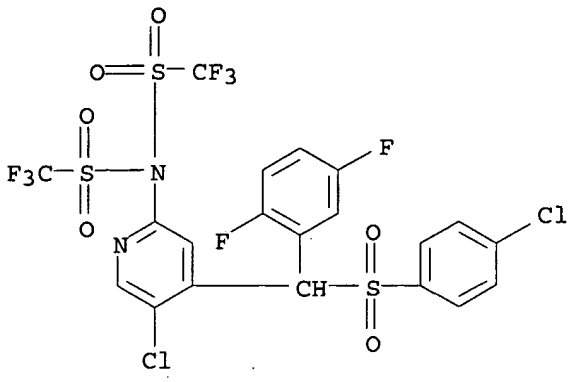
RN 820224-27-9 HCAPLUS
CN 1-Propanesulfonamide, 3-chloro-N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



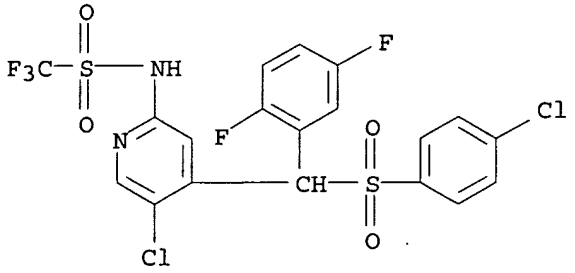
RN 820224-28-0 HCAPLUS
CN Pyridine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-(1,1-dioxido-2-isothiazolidinyl)- (9CI) (CA INDEX NAME)



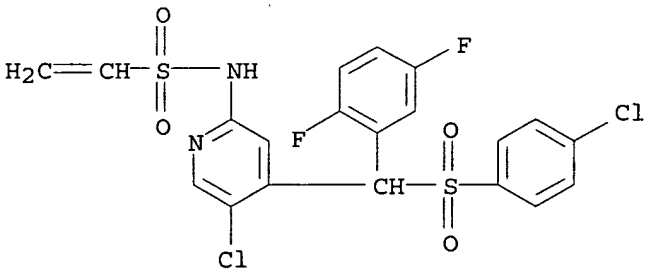
RN 820224-29-1 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]- (9CI) (CA INDEX NAME)



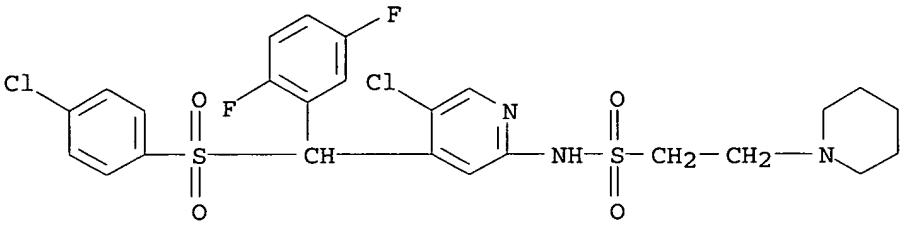
RN 820224-30-4 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-1,1,1-trifluoro- (9CI) (CA INDEX NAME)



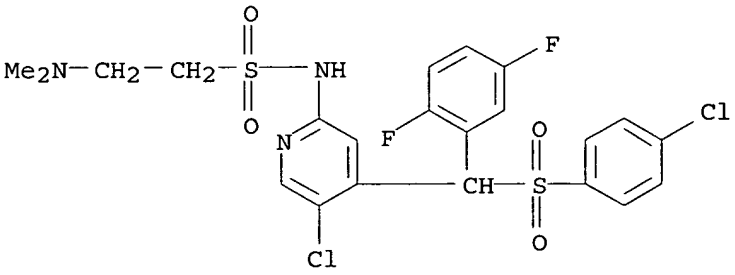
RN 820224-31-5 HCAPLUS
CN Ethenesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



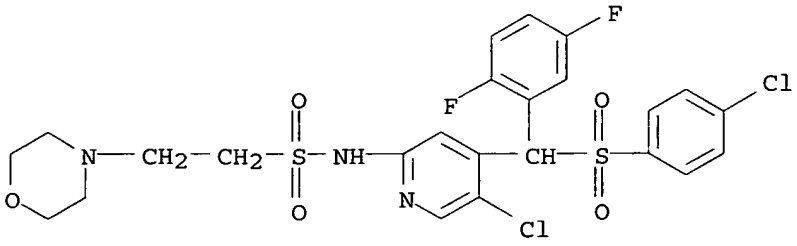
RN 820224-32-6 HCAPLUS
CN 1-Piperidineethanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



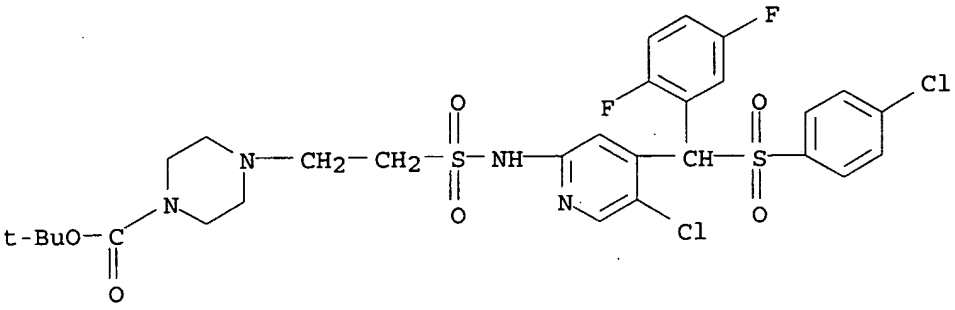
RN 820224-33-7 HCAPLUS
CN Ethanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-(dimethylamino)- (9CI) (CA INDEX NAME)



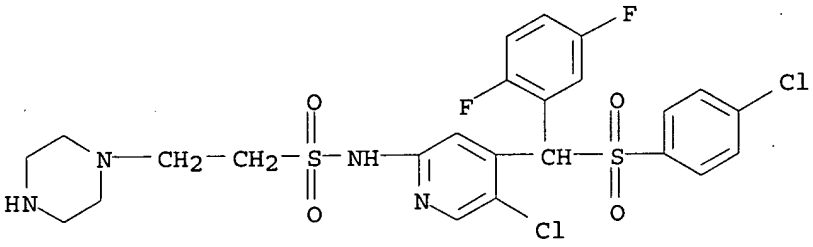
RN 820224-34-8 HCAPLUS
CN 4-Morpholineethanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



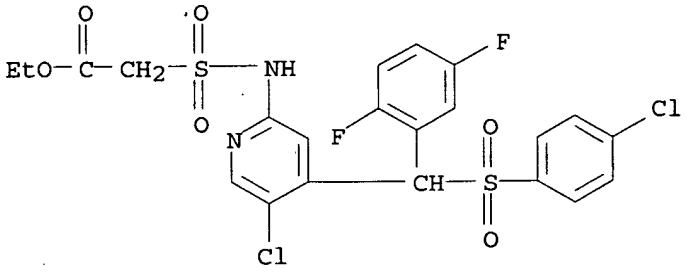
RN 820224-35-9 HCAPLUS
CN 1-Piperazinecarboxylic acid, 4-[2-[[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]sulfonyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



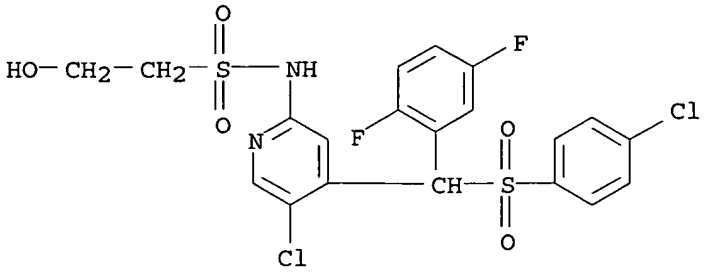
RN 820224-36-0 HCAPLUS
CN 1-Piperazineethanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



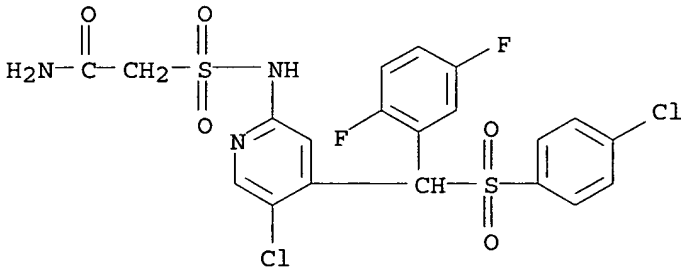
RN 820224-37-1 HCAPLUS
CN Acetic acid, [[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]sulfonyl]-, ethyl ester (9CI) (CA INDEX NAME)



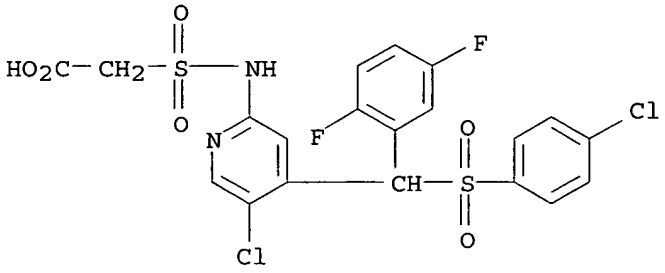
RN 820224-38-2 HCAPLUS
CN Ethanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-hydroxy- (9CI) (CA INDEX NAME)



RN 820224-39-3 HCAPLUS
CN Acetamide, 2-[[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

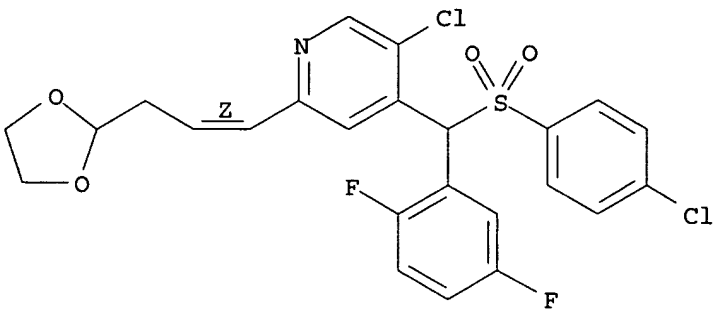


RN 820224-40-6 HCAPLUS
CN Acetic acid, [[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)



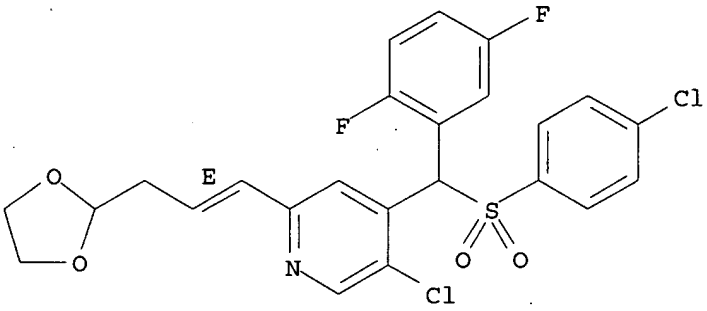
RN 820224-41-7 HCAPLUS
CN Pyridine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-[(1Z)-3-(1,3-dioxolan-2-yl)-1-propenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

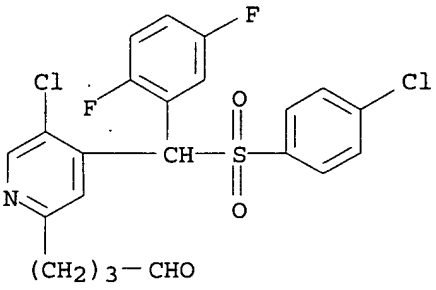


RN 820224-42-8 HCAPLUS
CN Pyridine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-[(1E)-3-(1,3-dioxolan-2-yl)-1-propenyl]- (9CI) (CA INDEX NAME)

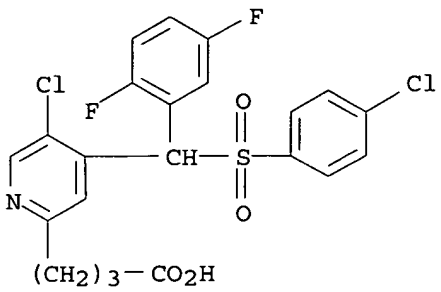
Double bond geometry as shown.



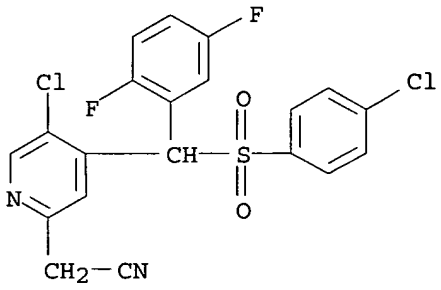
RN 820224-43-9 HCAPLUS
CN 2-Pyridinebutanal, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



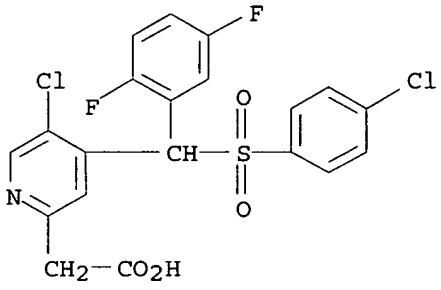
RN 820224-44-0 HCAPLUS
CN 2-Pyridinebutanoic acid, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



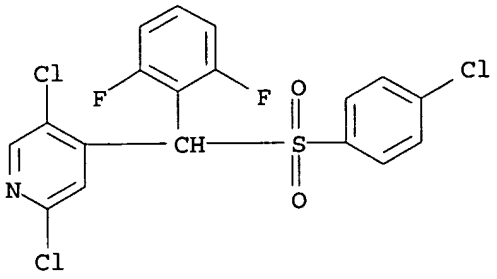
RN 820224-45-1 HCAPLUS
CN 2-Pyridineacetonitrile, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



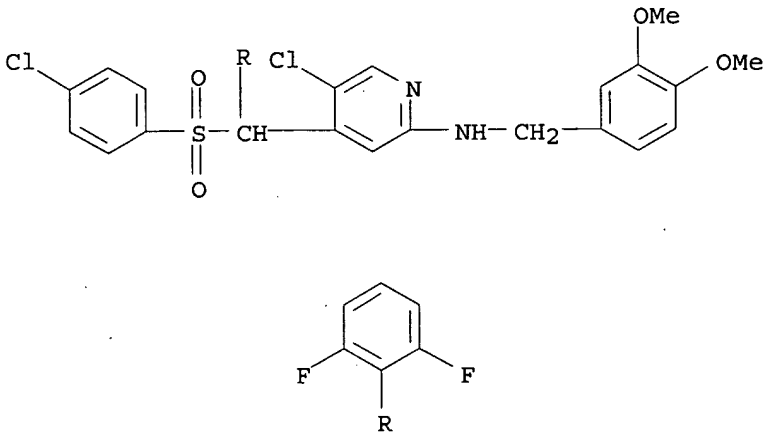
RN 820224-46-2 HCAPLUS
CN 2-Pyridineacetic acid, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



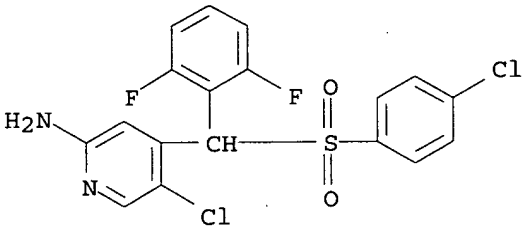
RN 820224-47-3 HCAPLUS
CN Pyridine, 2,5-dichloro-4-[[(4-chlorophenyl)sulfonyl](2,6-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



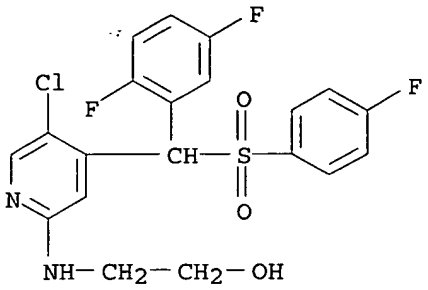
RN 820224-48-4 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,6-difluorophenyl)methyl]-N-[(3,4-dimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



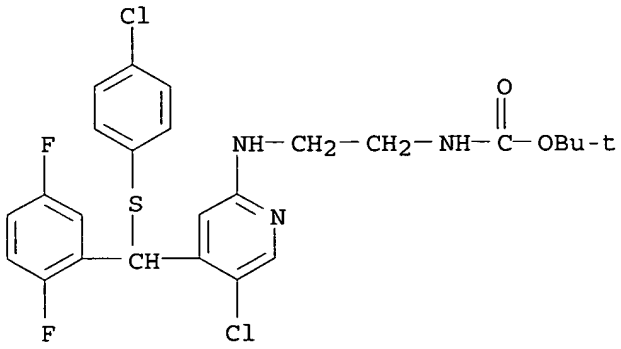
RN 820224-49-5 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,6-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 820225-72-7 HCAPLUS
CN Ethanol, 2-[[5-chloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)sulfonyl]methyl]-2-pyridinyl]amino]- (9CI) (CA INDEX NAME)



IT *820225-20-5*
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)
RN 820225-20-5 HCAPLUS
CN Carbamic acid, [2-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT *558464-87-2P 558464-89-4P 558465-40-0P*
558465-42-2P 558465-45-5P 820224-64-4P
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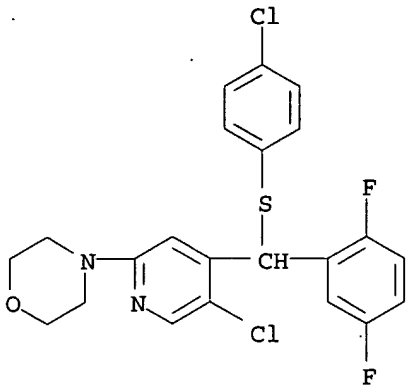
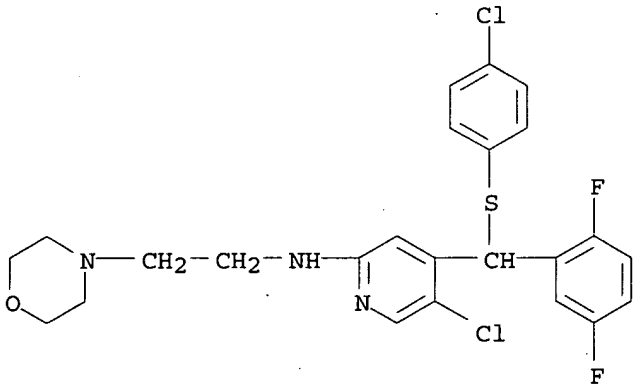
820224-68-8P 820224-69-9P 820224-70-2P
820224-71-3P 820224-72-4P 820224-73-5P
820224-74-6P 820224-75-7P 820224-76-8P
820224-77-9P 820224-78-0P 820224-79-1P
820224-82-6P 820224-86-0P 820224-87-1P
820224-88-2P 820224-89-3P 820224-91-7P
820224-93-9P 820224-97-3P 820224-99-5P
820225-08-9P 820225-13-6P 820225-14-7P
820225-15-8P 820225-16-9P 820225-17-0P
820225-18-1P 820225-22-7P 820225-23-8P
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(preparation of heterocyclic Me sulfone derivs. as β-amyloid protein secretion and production inhibitors)
RN 558464-87-2 HCAPLUS
CN Morpholine, 4-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

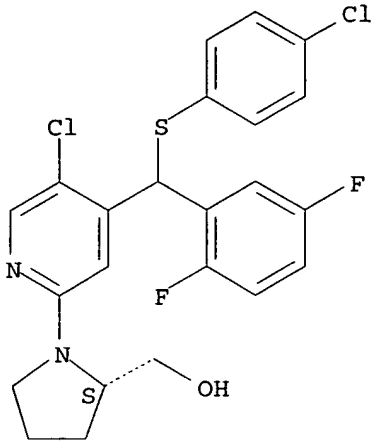


RN 558464-89-4 HCAPLUS
CN 4-Morpholineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

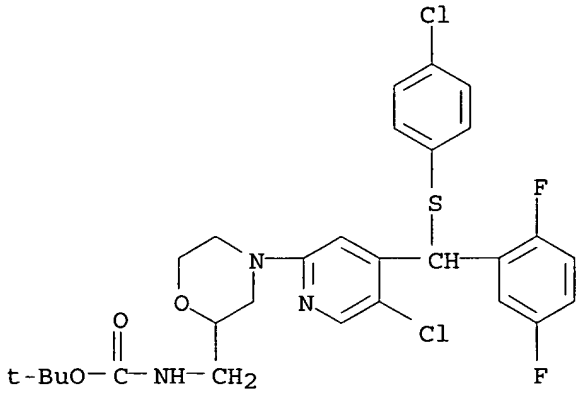


RN 558465-40-0 HCAPLUS
CN 2-Pyrrolidinemethanol, 1-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-, (2S)- (9CI) (CA INDEX NAME)

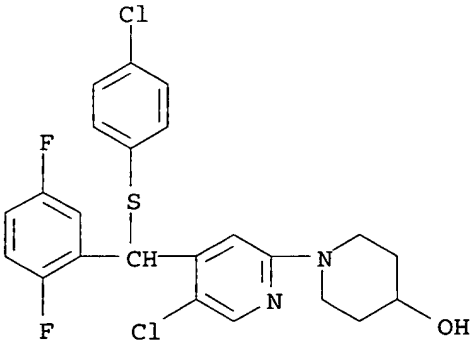
Absolute stereochemistry.



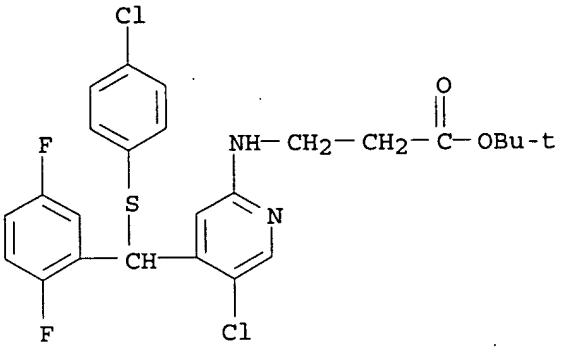
RN 558465-42-2 HCAPLUS
CN Carbamic acid, [[4-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-morpholinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



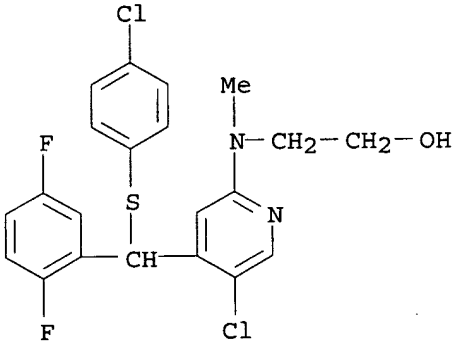
RN 558465-45-5 HCAPLUS
CN 4-Piperidinol, 1-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



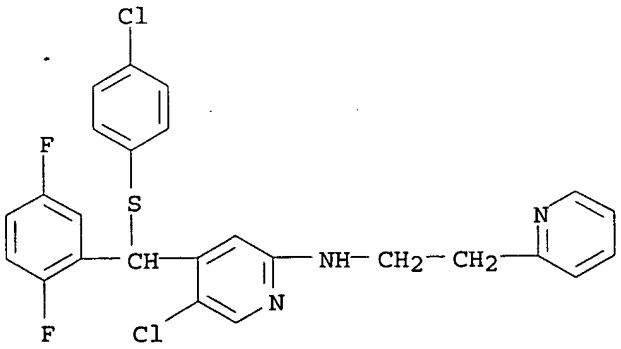
RN 820224-64-4 HCAPLUS
CN β-Alanine, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



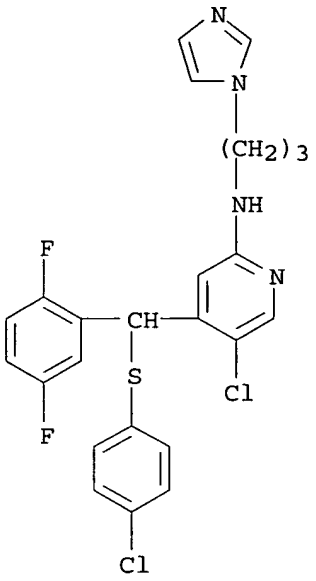
RN 820224-65-5 HCAPLUS
CN Ethanol, 2-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]- (9CI) (CA INDEX NAME)



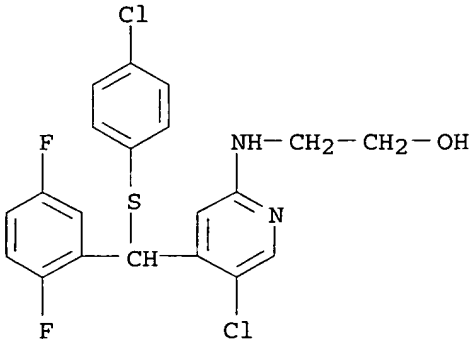
RN 820224-66-6 HCAPLUS
CN 2-Pyridineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



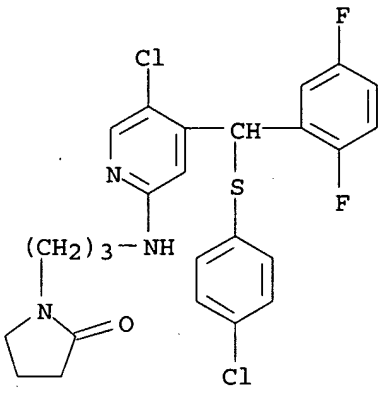
RN 820224-67-7 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-N-[3-(1H-imidazol-1-yl)propyl]- (9CI) (CA INDEX NAME)



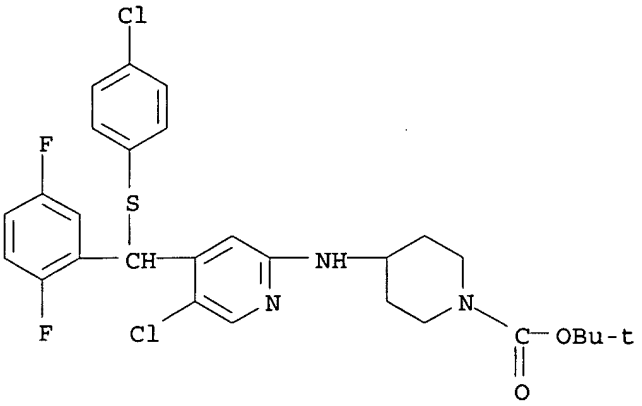
RN 820224-68-8 HCAPLUS
CN Ethanol, 2-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]- (9CI) (CA INDEX NAME)



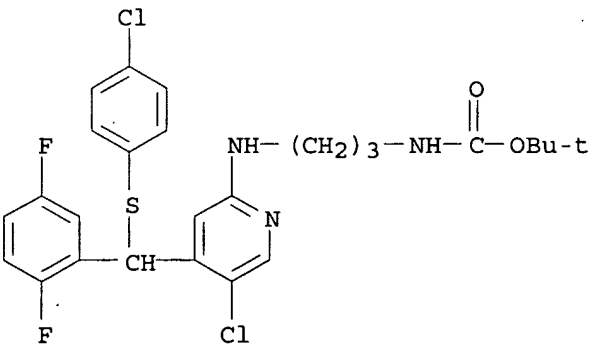
RN 820224-69-9 HCAPLUS
CN 2-Pyrrolidinone, 1-[3-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]propyl]- (9CI) (CA INDEX NAME)



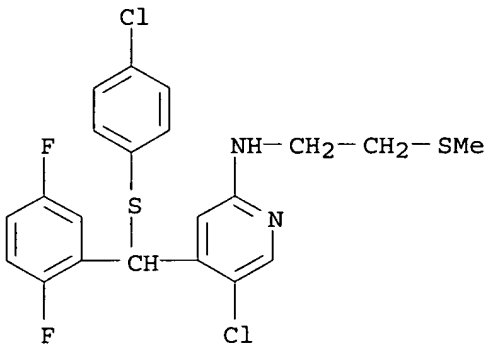
RN 820224-70-2 HCAPLUS
CN 1-Piperidinecarboxylic acid, 4-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



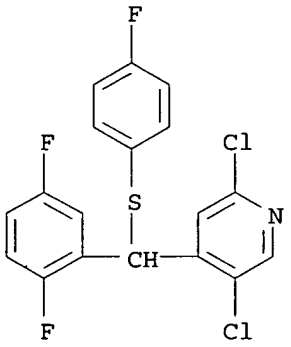
RN 820224-71-3 HCAPLUS
CN Carbamic acid, [3-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



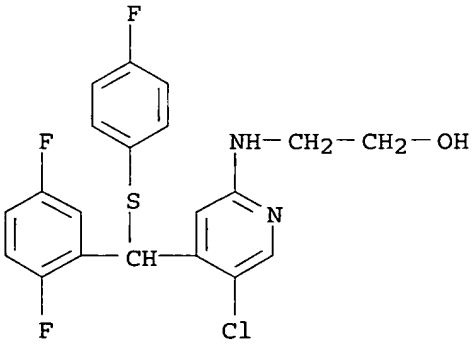
RN 820224-72-4 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-N-[2-(methylthio)ethyl]- (9CI) (CA INDEX NAME)



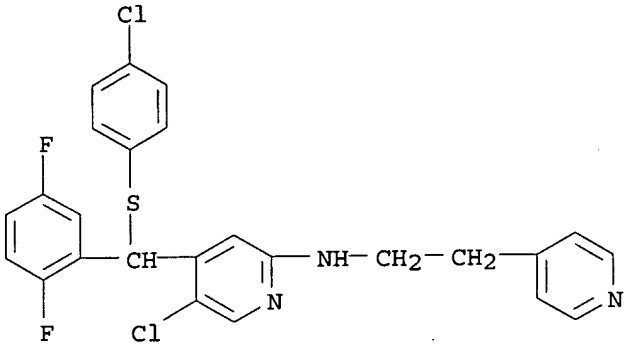
RN 820224-73-5 HCAPLUS
CN Pyridine, 2,5-dichloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)thio]methyl]- (9CI) (CA INDEX NAME)



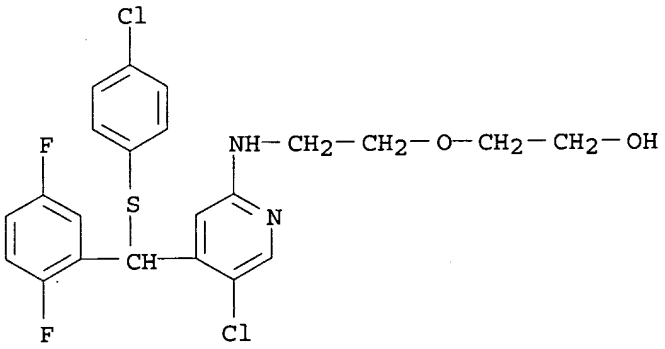
RN 820224-74-6 HCAPLUS
CN Ethanol, 2-[[5-chloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)thio]methyl]-2-pyridinyl]amino]- (9CI) (CA INDEX NAME)



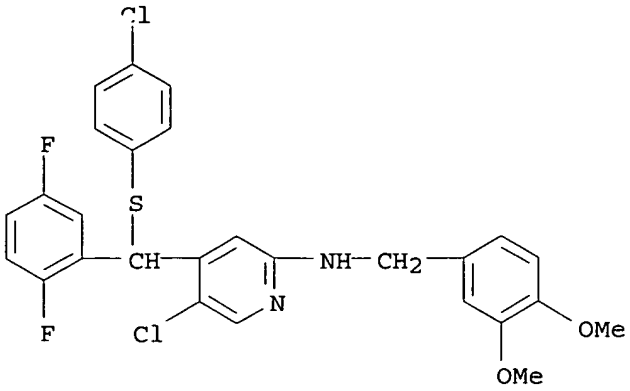
RN 820224-75-7 HCAPLUS
CN 4-Pyridineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



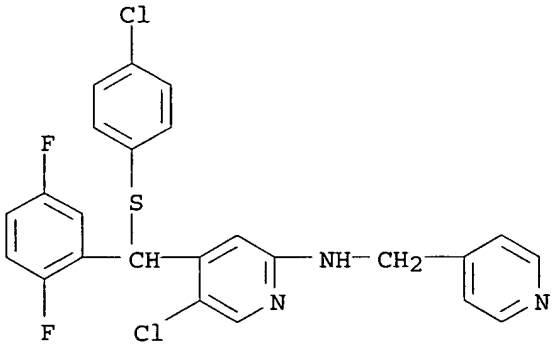
RN 820224-76-8 HCAPLUS
CN Ethanol, 2-[2-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]ethoxy]- (9CI) (CA INDEX NAME)



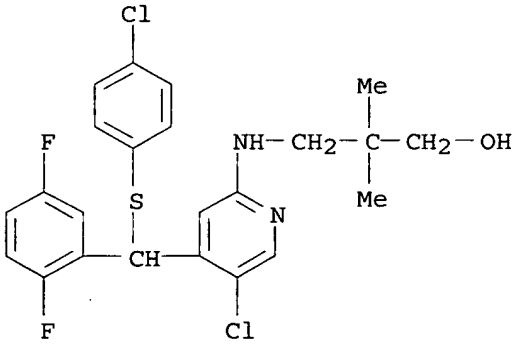
RN 820224-77-9 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-N-[(3,4-dimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



RN 820224-78-0 HCAPLUS
CN 4-Pyridinemethanamine, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

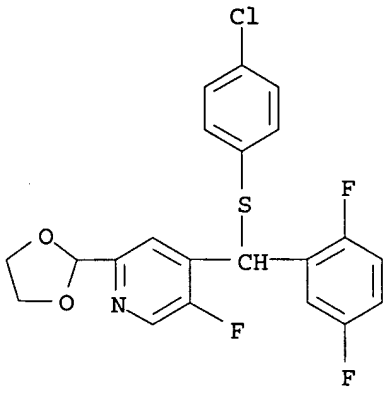


RN 820224-79-1 HCAPLUS
CN 1-Propanol, 3-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]amino]-2,2-dimethyl- (9CI) (CA INDEX NAME)

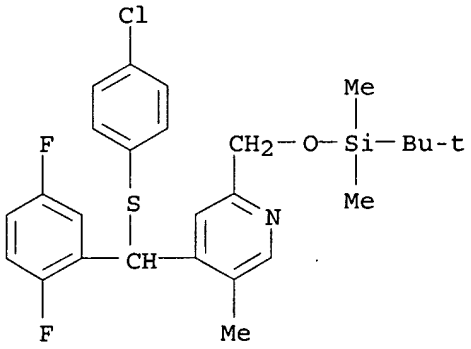


RN 820224-82-6 HCAPLUS

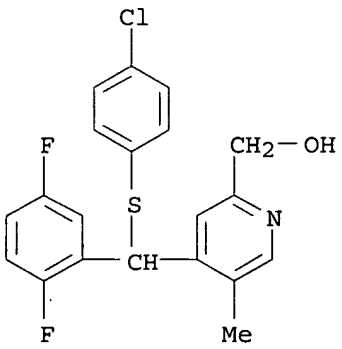
CN Pyridine, 4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-(1,3-dioxolan-2-yl)-5-fluoro- (9CI) (CA INDEX NAME)



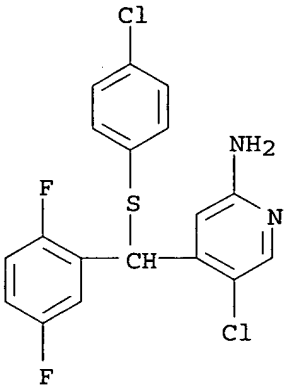
RN 820224-86-0 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-5-methyl- (9CI) (CA INDEX NAME)



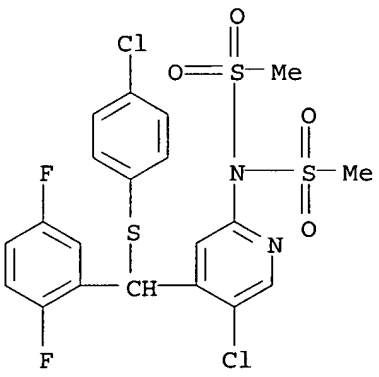
RN 820224-87-1 HCAPLUS
CN 2-Pyridinemethanol, 4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-5-methyl- (9CI) (CA INDEX NAME)



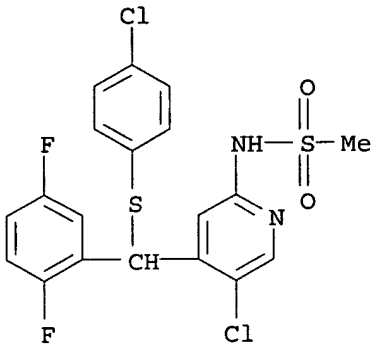
RN 820224-88-2 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



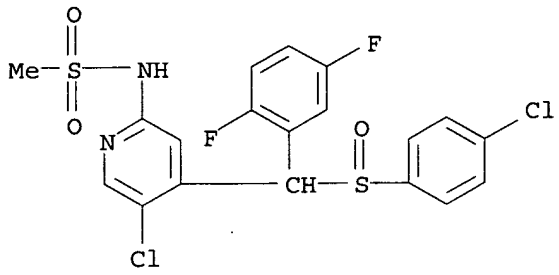
RN 820224-89-3 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



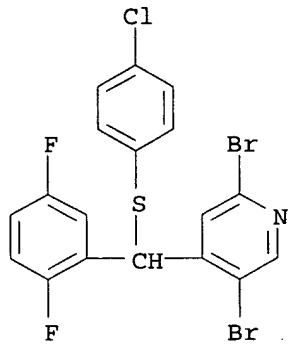
RN 820224-91-7 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



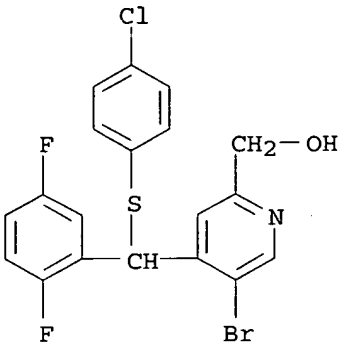
RN 820224-93-9 HCAPLUS
CN Methanesulfonamide, N-[5-chloro-4-[[(4-chlorophenyl)sulfinyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



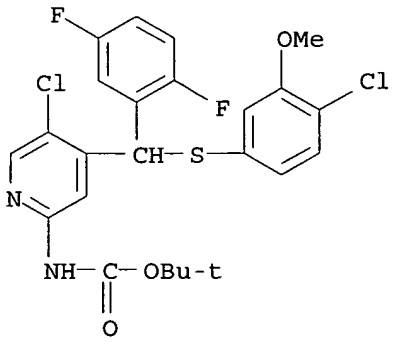
RN 820224-97-3 HCAPLUS
CN Pyridine, 2,5-dibromo-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



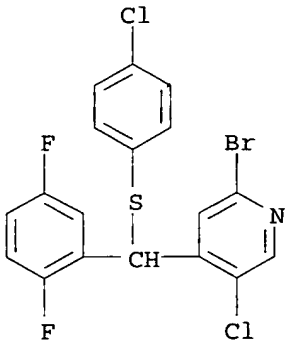
RN 820224-99-5 HCAPLUS
CN 2-Pyridinemethanol, 5-bromo-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



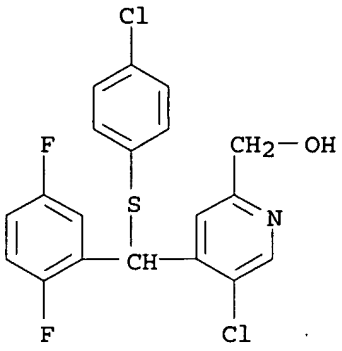
RN 820225-08-9 HCAPLUS
CN Carbamic acid, [5-chloro-4-[[(4-chloro-3-methoxyphenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



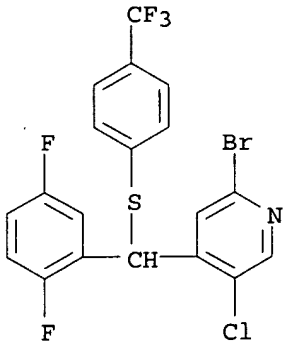
RN 820225-13-6 HCAPLUS
CN Pyridine, 2-bromo-5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 820225-14-7 HCAPLUS
CN 2-Pyridinemethanol, 5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)

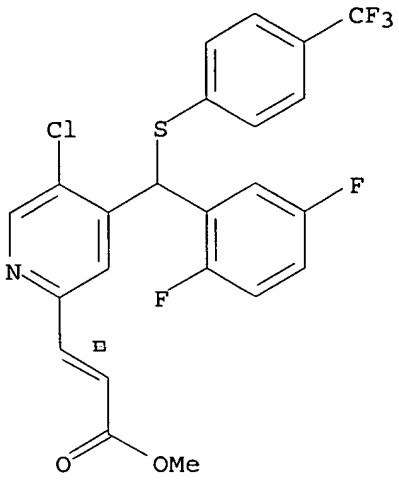


RN 820225-15-8 HCAPLUS
CN Pyridine, 2-bromo-5-chloro-4-[(2,5-difluorophenyl)[[4-(trifluoromethyl)phenyl]thio]methyl]- (9CI) (CA INDEX NAME)

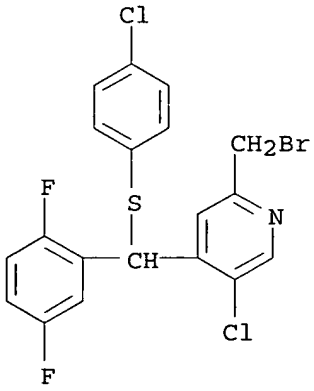


RN 820225-16-9 HCAPLUS
CN 2-Propenoic acid, 3-[5-chloro-4-[(2,5-difluorophenyl)[[4-(trifluoromethyl)phenyl]thio]methyl]-2-pyridinyl]-, methyl ester, (2E)-(9CI) (CA INDEX NAME)

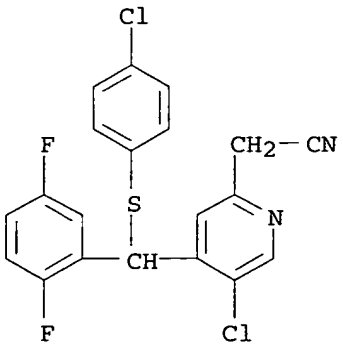
Double bond geometry as shown.



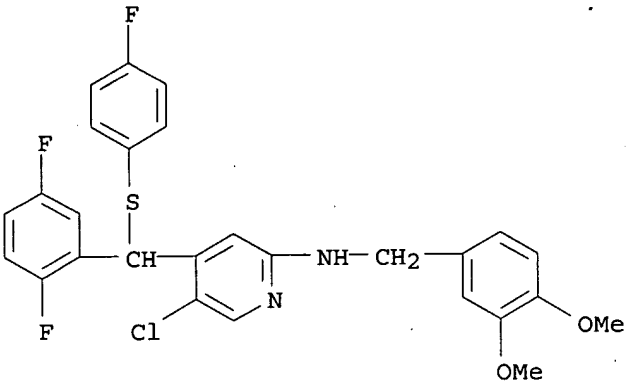
RN 820225-17-0 HCAPLUS
CN Pyridine, 2-(bromomethyl)-5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



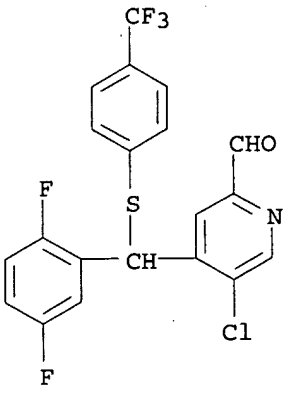
RN 820225-18-1 HCAPLUS
CN 2-Pyridineacetonitrile, 5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 820225-22-7 HCAPLUS
CN 2-Pyridinamine, 5-chloro-4-[(2,5-difluorophenyl)[(4-fluorophenyl)thio]methyl]-N-[(3,4-dimethoxyphenyl)methyl]- (9CI) (CA INDEX NAME)



RN 820225-23-8 HCAPLUS
CN 2-Pyridinecarboxaldehyde, 5-chloro-4-[(2,5-difluorophenyl)[[4-(trifluoromethyl)phenyl]thio]methyl]- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Eli Lilly And Co	1978			GB 1595261 A	HCAPLUS
Eli Lilly And Co	1978			US 4116665 A	HCAPLUS
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Nihon Bayer Agrochem Ka	1994			JP 06-56780 A	HCAPLUS
Sterling Drug Inc	1980			GB 2028808 A	HCAPLUS
Sterling Drug Inc	1980			US 4257954 A	HCAPLUS
Sterling Drug Inc	1980			JP 55-33473 A	HCAPLUS
Tabakovic, I	1997	29	223	Organic Preparations	HCAPLUS

L16 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:532638 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 139:101146
TITLE: Preparation of benzyl or heterocyclylmethyl phenyl or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors
INVENTOR(S): Yasukochi, Takanori; Ito, Masayuki; Kubota, Hideki; Miyauchi, Satoshi; Saito, Masaki
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 540 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055850	A1	20030710	WO 2002-JP13792	20021227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2471943	A1	20030710	CA 2002-2471943	20021227
AU 2002367147	A1	20030715	AU 2002-367147	20021227
EP 1466898	A1	20041013	EP 2002-790937	20021227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1585746	A	20050223	CN 2002-827790	20021227
US 2005234109	A1	20051020	US 2004-500156	20040625 <--

PRIORITY APPLN. INFO.:			
	JP 2001-395701	A	20011227
	WO 2002-JP13792	W	20021227

OTHER SOURCE(S): MARPAT 139:101146
AB Novel compds. having various substituents as represented by the following general formula R1(R2)(R3)C-X-R4, salts thereof, and solvates of the same [wherein X = S, SO, SO2; R1 = CR5R6R7, NR8R9, X1R10, X2R11; wherein R5, R6, R7 = halo, cyano, NO2, -Q51-Q52-Q53-Q54; Q51, Q53 = single bond, CO, S(O), SO2, COCO, COC(S), C(S)C(S); Q52 = single bond, O, ON(A51), ON(COA51), N(A51), N(COA51), N(CO2A51), N[CON(A51)(A52)], N(OA51), N(NA51A52), N(A51)N(A52), N(COA51)N(A52), N(A51)-O, N(COA51)-O, S, N:N, C(A51):N, C(A51):N-O, C(A51):N-N(A52), N:C(A51), O-N:C(A51), N(A51)-N:C(A52), C(:NA51)-N(A52); Q54 = A53, OA53, N(A53)(A54), SA53, NA54-OA53, NA55-N(A53)(A54), O-N(A53)(A54); wherein A51, A52, A53 = H, (un)substituted hydrocarbyl or heterocyclyl; R2, R3, R4, R8, R9, R10, R11 = -Q51-Q52-Q53-Q54 defined in R5-R7; X1 = O, S; X2 = SO, SO2; or R1 and R2

or R3 and R4 are combined together to form (un)substituted cyclohydrocarbyl or heterocyclyl] are prepared These compds. have an effect of inhibiting the production/secretion of a β-amyloid protein and are useful for the prevention or treatment of diseases caused by unusual production/secretion of β-amyloid, in particular ***Alzheimer***'s disease or Down's syndrome. Thus, a solution of 100 mg 2,5-dichloro-4-[(4-chlorophenylthio)-(2,5-difluorophenyl)methyl]pyridine (preparation given) and 200 μL morpholine in 1.0 mL 1,4-dioxane was stirred at 100° for 2 days to give 4-[5-chloro-4-[(4-chlorophenylthio)-(2,5-difluorophenyl)methyl]pyridin-2-yl]morpholine which (90 mg) was dissolved in 12 mL MeOH, treated with 60 mg ammonium molybdate tetrahydrate [(NH4)6Mo7O24.4H2O] and 6 mL 30% H2O2, and stirred for 8 h to give 83% 4-[5-chloro-4-[(4-chlorophenylsulfonyl)-(2,5-difluorophenyl)methyl]pyridin-2-yl]morpholine (I). I in vitro glioma cell (H4 cell) expressing human β-amyloid protein precursor protein gene (APP751 gene) with EC50 of ≤50 nM.

IC ICM C07C317-14
ICS C07C317-18; C07C317-24; C07C317-28; C07C317-44; C07C323-09; C07C323-65; C07F007-18; A61K031-10; A61K031-12; A61K031-192; A61K031-216; A61K031-235; A61K031-255; A61K031-27

CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 25, 27

ST benzyl phenyl sulfone prepn treatment prevention ***Alzheimer*** disease; beta amyloid protein prodn secretion inhibitor; heterocyclylmethyl phenyl sulfone prepn amyloid protein prodn secretion inhibitor; Down syndrome treatment prevention benzyl phenyl sulfone prepn; heterocyclyl benzyl sulfone prepn treatment prevention ***Alzheimer*** disease

IT Sulfones
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(aryl; preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

IT ***Alzheimer's disease***
Down's syndrome
Human
(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

IT Aromatic compounds
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sulfones; preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

IT Amyloid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β-; preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

IT 18527-41-8P 471904-31-1P 558461-54-4P 558461-61-3P 558461-63-5P
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558465-63-7P 558465-79-5P 558465-80-8P 558465-85-3P,
1-[(4-Chlorophenyl)sulfonyl]-1-(2,5-difluorophenyl)-3-octanol
558466-16-3P
RL: ***PAC (Pharmacological activity)***; RCT (Reactant); SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***; USES (Uses)
(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

IT 558464-74-7P 558464-75-8P 558464-77-0P 558464-78-1P 558464-80-5P
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558465-77-3P 558466-15-2P 558466-22-1P 558466-29-8P
RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

IT 50-00-0, Formaldehyde, reactions 57-14-7, 1,1-Dimethylhydrazine 60-12-8, 2-Phenylethanol 60-56-0, 2-Mercapto-1-methylimidazole 62-56-6, Thiourea, reactions 64-17-5, Ethanol, reactions 67-56-1, Methanol, reactions 71-41-0, 1-Pentanol, reactions 74-88-4, Iodomethane, reactions 74-89-5, Methylamine, reactions 75-36-5, Acetyl chloride 75-65-0, 2-Methyl-2-propanol, reactions 79-22-1, Methyl chloroformate 79-44-7, N,N-Dimethylcarbamoyl chloride 87-41-2, Phthalide 92-54-6, N-Phenylpiperazine 96-41-3, Cyclopentanol 98-00-0, Furfuryl alcohol 98-85-1 98-88-4, Benzoyl chloride 100-39-0, Benzyl bromide 100-46-9, Benzylamine, reactions 100-51-6, Benzyl alcohol, reactions 100-52-7, Benzaldehyde, reactions 100-55-0, 3-Pyridylmethanol 103-63-9, (2-Bromoethyl)benzene 103-67-3, N-Benzylmethylamine 103-74-2, 2-(2-Hydroxyethyl)pyridine 105-36-2,

Ethyl bromoacetate 106-45-6, p-Toluenethiol 106-52-5, 1-Methylpiperidin-4-ol 106-54-7, 4-Chlorobenzenethiol 107-21-1, Ethylene glycol, reactions 107-88-0, 1,3-Butanediol 108-01-0, 2-Dimethylaminoethanol 108-40-7, m-Toluenethiol 108-93-0, Cyclohexanol, reactions 108-98-5, Thiophenol, reactions 109-01-3, 1-Methylpiperazine 109-04-6, 2-Bromopyridine 109-72-8, n-Butyllithium, reactions 109-83-1, N-Methylethanolamine 109-90-0, Ethyl isocyanate 110-64-5, 2-Butene-1,4-diol 110-70-3, N,N'-Dimethylethylenediamine 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-27-3, 1-Hexanol, reactions 111-48-8, 2,2'-Thiodiethanol 111-70-6, 1-Heptanol 111-95-5 122-97-4, 3-Phenyl-1-propanol 123-72-8, Butanal 123-75-1, Pyrrolidine, reactions 123-90-0, Thiomorpholine 124-40-3, Dimethylamine, reactions 124-63-0, Methanesulfonyl chloride 127-09-3, Sodium acetate 137-00-8, 5-(2-Hydroxyethyl)-4-methylthiazole 137-06-4, o-Toluenethiol 140-89-6, O-Ethyl potassium dithiocarbonate 141-75-3, Butyryl chloride 149-30-4, 2-Mercaptobenzothiazole 371-42-6, 4-Fluorobenzenethiol 393-55-5, 2-Fluoronicotinic acid 399-94-0, 1-Bromo-2,5-difluorobenzene 429-41-4, Tetrabutylammonium fluoride 446-48-0, 2-Fluorobenzyl bromide 456-41-7, 3-Fluorobenzyl bromide 459-46-1, 4-Fluorobenzyl bromide 459-56-3, 4-Fluorobenzyl alcohol 506-59-2, Dimethylamine hydrochloride 529-36-2, 1-Naphthalenethiol 542-69-8, 1-Iodobutane 583-39-1, 2-Mercaptobenzimidazole 586-95-8, 4-Pyridylmethanol 586-98-1, 2-Pyridylmethanol 589-35-5, 3-Methyl-1-pentanol 593-56-6, O-Methylhydroxylamine hydrochloride 611-17-6, 2-Chlorobenzyl bromide 621-84-1, Benzyl carbamate 622-40-2, 4-(2-Hydroxyethyl)morpholine 622-95-7, 4-Chlorobenzyl bromide 624-76-0, 2-Iodoethanol 626-55-1, 3-Bromopyridine 626-60-8, 3-Chloropyridine 626-89-1, 4-Methyl-1-pentanol 626-95-9, 1,4-Pentanediol 628-77-3, 1,5-Diiodopentane 629-09-4, 1,6-Diiodohexane 636-72-6, 2-Thiophenemethanol 637-89-8, 4-Mercaptophenol 696-63-9, 4-Methoxybenzenethiol 699-02-5, 2-(4-Methylphenyl)ethanol 702-23-8, 2-(4-Methoxyphenyl)ethanol 766-00-7, 2-Cyclopentaneethanol 766-80-3, 3-Chlorobenzyl bromide 824-94-2, 4-Methoxybenzyl chloride 824-98-6, 3-Methoxybenzyl chloride 872-85-5, 4-Pyridinecarboxaldehyde 929-37-3, 2-(2-Vinyloxyethoxy)ethanol 939-26-4, 2-Bromomethylnaphthalene 1072-72-6, Tetrahydrothiopyran-4-one 1072-98-6, 2-Amino-5-chloropyridine 1076-38-6, 4-Hydroxycoumarin 1080-44-0, N-p-Tosylglycine 1118-68-9, N,N-Dimethylglycine 1120-87-2, 4-Bromopyridine 1124-63-6, 3-Cyclohexyl-1-propanol 1197-26-8 1450-85-7, 2-Mercaptopyrimidine 1452-94-4, Ethyl 2-chloronicotinate 1569-69-3, Cyclohexanethiol 1632-83-3, 1-Methylbenzimidazole 1663-39-4, tert-Butyl acrylate 1822-51-1, 4-Chloromethylpyridine hydrochloride 1851-09-8, (4-Chlorophenylsulfonyl)acetonitrile 1875-88-3, 2-(4-Chlorophenyl)ethanol 1875-89-4, 2-(3-Methylphenyl)ethanol 1877-71-0, Isophthalic acid monomethyl ester 2037-31-2, 3-Chlorobenzenethiol 2038-03-1, 2-Morpholinoethylamine 2067-33-6, 5-Bromovaleric acid 2081-44-9, Tetrahydropyran-4-ol 2344-70-9 2361-27-5, 2-Thiophenecarbohydrazide 2550-36-9, Cyclohexylmethyl bromide 2557-78-0, 2-Fluorobenzenethiol 2605-67-6, Methyl triphenylphosphoranylideneacetate 2637-34-5, 2-Mercaptopyridine 2637-37-8, 2-Quinolinethiol 2646-90-4, 2,5-Difluorobenzaldehyde 2759-28-6, N-Benzylpiperazine 2949-92-0 2969-81-5, Ethyl 4-bromobutyrate 3034-53-5, 2-Bromothiazole 3040-44-6, 1-Piperidineethanol 3163-27-7, 1-Bromomethylnaphthalene 3179-63-3 3218-02-8, (Aminomethyl)cyclohexane 3326-71-4, 2-Furancarbohydrazide 3360-41-6, 4-Phenyl-1-butanol 3430-17-9, 2-Bromo-3-methylpyridine 3510-66-5, 2-Bromo-5-methylpyridine 3581-89-3, 5-Methylthiazole 3747-74-8, 2-Chloromethylquinoline hydrochloride 4104-45-4, 3-Methylthiopropylamine 4442-79-9, 2-Cyclohexaneethanol 4556-23-4,

4-Mercaptopyridine 4595-59-9, 5-Bromopyrimidine 4635-59-0, 4-Chlorobutyryl chloride 4654-39-1, 2-(4-Bromophenyl)ethanol 4727-72-4, 1-Benzylpiperidin-4-ol 4755-77-5, Ethyl chloroglyoxylate 4926-28-7, 2-Bromo-4-methylpyridine 5063-65-0, 1,2-Epoxyheptane 5188-07-8, Sodium thiomethoxide 5292-43-3, tert-Butyl bromoacetate 5350-93-6, 5-Amino-2-chloropyridine 5382-16-1, 4-Hydroxypiperidine 5402-55-1, 2-(2-Thienyl)ethanol 5414-19-7, Bis(2-bromoethyl) ether 5470-11-1, Hydroxylamine hydrochloride 6032-29-7, 2-Pentanol 6320-03-2, 2-Chlorobenzenethiol 6321-23-9, 4-Methylcyclohexylamine 6419-36-9, 3-Pyridylacetic acid hydrochloride 6602-32-0, 2-Bromo-3-hydroxypyridine 6719-02-4, 1-(2-Hydroxyethyl)pyrrole 6959-47-3, 2-Chloromethylpyridine hydrochloride 6959-48-4, 3-Chloromethylpyridine hydrochloride 7217-59-6, 2-Methoxybenzenethiol 7589-27-7, 2-(4-Fluorophenyl)ethanol 7664-41-7, Ammonia, reactions 7693-46-1, 4-Nitrophenyl chloroformate 7709-58-2, 4-(Chloromethyl)thiazole hydrochloride 7789-23-3, Potassium fluoride 10040-95-6, 1-(4-Methoxyphenyl)imidazole 10200-59-6, 2-Formylthiazole 10394-36-2, 5-Chloro-1-methylbenzimidazole 13183-79-4, 1-Methyl-5-mercapto-1,2,3,4-tetrazole 13360-57-1, N,N-Dimethylsulfamoyl chloride 14752-66-0, 4-Chlorobenzenesulfinic acid sodium salt 15570-12-4, 3-Methoxybenzenethiol 16110-09-1, 2,5-Dichloropyridine 17832-28-9, 4-Vinyloxy-1-butanol 18107-18-1, Trimethylsilyldiazomethane 18162-48-6, tert-Butyldimethylsilyl chloride 18880-04-1, 3,4-Dichlorobenzyl bromide 19524-08-4, 4-Chloro-3-methylpyridine hydrochloride 19819-98-8, 2-(2-Methylphenyl)ethanol 20260-53-1, Nicotinoyl chloride hydrochloride 20582-85-8, 4-(Methylthio)-1-butanol 22115-41-9, 2-Bromomethylbenzonitrile 23356-96-9, (S)-2-Pyrrolidinemethanol 24424-99-5, Di-tert-butyl dicarbonate 25542-62-5, Ethyl 6-bromohexanoate 26386-88-9, Diphenylphosphoryl azide 26628-22-8, Sodium azide 28188-41-2, 3-Bromomethylbenzonitrile 39178-35-3, Isonicotinoyl chloride hydrochloride 39901-94-5, Picolinoyl chloride hydrochloride 45767-66-6, 2-Chloro-4-fluorobenzyl bromide 51779-32-9, Di-tert-butyl iminodicarboxylate 51865-84-0, 4-(N-Formyl-N-methylamino)benzoic acid 56542-67-7, 3-Cyanobenzenesulfonyl chloride 57774-99-9, 5-(Methylthio)-1-pentanol 58479-61-1, tert-Butylchlorodiphenylsilane 58939-65-4, 2-Hydroxymethyl-N,N-dimethylbenzamide 59084-16-1, 1-Acetyl-4-piperidinecarbonyl chloride 67754-03-4, 2,5-Dichloronicotinic acid methyl ester 71916-91-1, 2-Bromomethyl-4-chloro-1-fluorobenzene 75853-20-2, 2,5-Difluorobenzyl alcohol 83067-20-3, 5-(tert-Butyldimethylsilyloxy)-1-pentanol 84228-93-3, (E)-3-(Pyridin-4-yl)acrylic acid 85070-47-9, 3-Chloro-2-fluorobenzyl bromide 85117-99-3, 2-Bromomethyl-1,4-difluorobenzene 85118-00-9, 2,6-Difluorobenzyl bromide 85118-01-0, 3,4-Difluorobenzyl bromide 85482-13-9, 2,5-Dichlorobenzyl bromide 92511-12-1, 4-(tert-Butyldimethylsilyloxy)-1-iodobutane 101166-65-8 103898-11-9, N,N-Bis(2-hydroxyethyl)carbamic acid tert-butyl ester 109384-19-2, 4-Hydroxy-1-piperidinecarboxylic acid tert-butyl ester 112898-33-6 113211-94-2, 2,3-Difluorobenzyl bromide 116141-68-5, 5,5-Dimethyl-1,3-dioxane-2-ethanol 118794-70-0, 6-(tert-Butyldiphenylsilyloxy)hexanal 121671-77-0, 6-(tert-Butyldiphenylsilyloxy)hexanol 127232-41-1, Oxazol-5-ylmethanol 141776-91-2, 3,5-Difluorobenzyl bromide 147751-16-4, N-(Methylsulfonyl)carbamic acid tert-butyl ester 147974-19-4, 7-(tert-Butyldiphenylsilyloxy)heptanal 149170-33-2, [2-[(tert-Butyldiphenylsilyloxy)methyl]phenyl]methanol 173341-02-1, tert-Butyl [(morpholin-2-yl)methyl]carbamate 558466-30-1, (3,6-Dichloropyridin-2-yl)(pyridin-4-yl)methanol
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

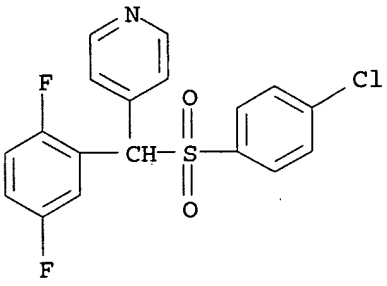
IT 446-26-4P, 2-Fluoronicotinic acid methyl ester 3803-15-4P, 4-Chlorophenyl 4-fluorobenzyl sulfone 7058-22-2P 7082-99-7P, 4-Chlorobenzyl 4-chlorophenyl sulfone 14542-12-2P, Thiazole-2-methanol 24100-18-3P, 2-Bromo-3-methoxypyridine 26981-51-1P, 4-(Methylsulfonyl)-1-butanol 29683-23-6P, Tetrahydrothiopyran-4-ol 40771-41-3P, 5-Chloro-2-pyridinethiol 41866-56-2P 42330-59-6P, (2-Chloropyridin-3-yl)methanol 60270-06-6P, 4-(Methylsulfinyl)-1-butanol 69383-71-7P, 3-(Dimethylcarbamoyl)benzoic acid methyl ester 87184-80-3P, 5-(tert-Butyldimethylsilyloxy)pentanal 100716-73-2P 104925-50-0P, 4-(tert-Butyldimethylsilyloxy)-2-butanol 105971-70-8P, 2-Chlorobenzyl 4-chlorophenyl sulfone 105972-81-4P, 3-Chlorobenzyl 4-chlorophenyl sulfone 106651-92-7P, 4-Chlorophenyl ((pyridin-3-yl)methyl) sulfone 123552-77-2P, 3-Allyloxy-2-bromopyridine 131747-55-2P, (2-Fluoropyridin-3-yl)methanol 134297-05-5P, 4-(tert-Butyldimethylsilyloxy)-2-buten-1-ol 145489-01-6P, 1-(5-Bromopentanoyl)pyrrolidine 194225-79-1P, 2-[[2-(tert-Butyldiphenylsilyloxy)ethyl]thio]ethanol 283608-49-1P, 3-Hydroxymethyl-N,N-dimethylbenzamide 470716-51-9P 470716-52-0P 471905-59-6P, 4-Chlorophenyl 2-fluorobenzyl sulfone 558462-27-4P 558462-30-9P 558462-32-1P 558462-34-3P 558462-36-5P 558462-38-7P 558462-43-4P 558462-45-6P 558462-47-8P 558462-54-7P 558462-56-9P 558462-58-1P 558462-60-5P 558462-62-7P 558464-21-4P 558465-76-2P, 1-(2,5-Difluorophenyl)-1-pentanol 558465-78-4P 558465-81-9P, 5-[(4-Chlorophenyl)sulfonyl]-5-(2,5-difluorophenyl)pentyl 4-nitrophenyl carbonate 558465-82-0P 558465-83-1P, 4-Chlorophenyl 3-fluorobenzyl sulfone 558465-84-2P 558465-86-4P, 2-Chloro-4-fluorobenzyl 4-chlorophenyl sulfone 558465-87-5P, 4-Chlorophenyl 3,4-dichlorobenzyl sulfone 558465-88-6P, 4-Chlorophenyl ((pyridin-2-yl)methyl) sulfone 558465-89-7P 558465-90-0P, 1-Iodo-4-(methylsulfonyl)butane 558465-91-1P, 2-[(4-Chlorophenylsulfonyl)methyl]-1,3-difluorobenzene 558465-92-2P, 3-Bromomethyl-N,N-dimethylbenzamide 558465-93-3P, (2,5-Dichloropyridin-3-yl)methanol 558465-94-4P 558465-95-5P 558465-96-6P 558465-97-7P 558465-98-8P 558465-99-9P 558466-00-5P 558466-01-6P 558466-02-7P 558466-03-8P 558466-04-9P 558466-05-0P 558466-06-1P 558466-07-2P, 5-(Methylsulfonyl)-1-pentanol 558466-08-3P, 5-(Methylsulfonyl)pentanal 558466-09-4P, 1-(2,5-Difluorophenyl)-5-(methylsulfonyl)-1-pentanol 558466-10-7P, 1-(2,5-Difluorophenyl)-5-(methylsulfonyl)pentyl methanesulfonate 558466-11-8P 558466-12-9P, 6-Chloro-3-pyridinethiol 558466-13-0P, 6-(tert-Butyldiphenylsilyloxy)-1-(2,5-difluorophenyl)-1-hexanol 558466-14-1P, 7-(tert-Butyldiphenylsilyloxy)-1-(2,5-difluorophenyl)-1-heptanol 558466-17-4P, N-[2-(tert-Butyldiphenylsilyloxy)ethyl]-N-(2-hydroxyethyl)carbamic acid tert-butyl ester 558466-18-5P, 2-[5-(tert-Butyldiphenylsilyloxy)-1-[(4-chlorophenyl)sulfonyl]-2-methylpentyl]-1,4-difluorobenzene 558466-19-6P, 5-[(4-Chlorophenyl)sulfonyl]-5-(2,5-difluorophenyl)-4-methyl-1-pentanol 558466-20-9P 558466-21-0P 558466-23-2P, 5-Dibromomethyl-2-(2,5-difluorobenzoyl)pyridine 558466-24-3P, 5-Bromomethyl-2-(2,5-difluorobenzoyl)pyridine 558466-25-4P, [6-(2,5-Difluorobenzoyl)pyridin-3-yl]methyl acetate 558466-26-5P 558466-27-6P 558466-28-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

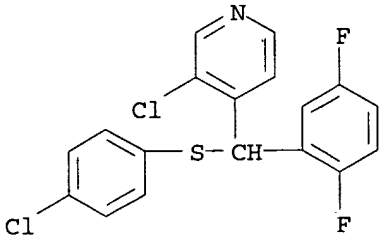
IT ***558462-85-4P 558464-82-7P 558464-83-8P 558464-87-2P 558464-90-7P 558465-37-5P***

558465-40-0P 558465-42-2P 558465-43-3P
558465-45-5P
RL: ***PAC (Pharmacological activity)***; RCT (Reactant); SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
; USES (Uses)
(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

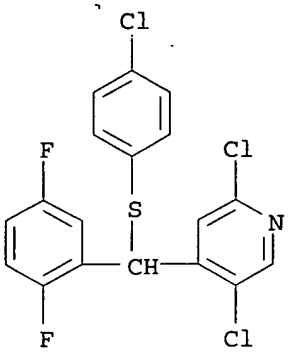
RN 558462-85-4 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



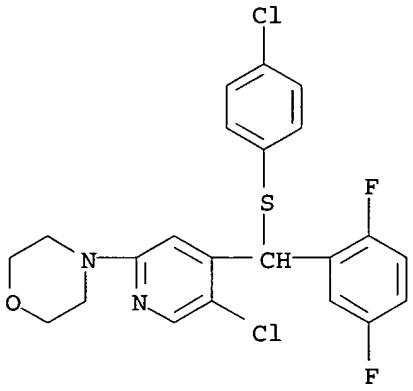
RN 558464-82-7 HCAPLUS
CN Pyridine, 3-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



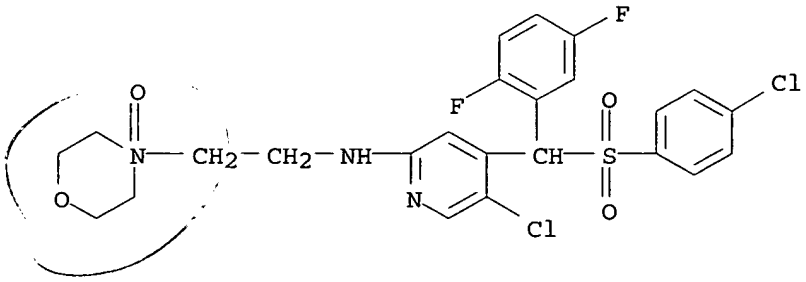
RN 558464-83-8 HCAPLUS
CN Pyridine, 2,5-dichloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



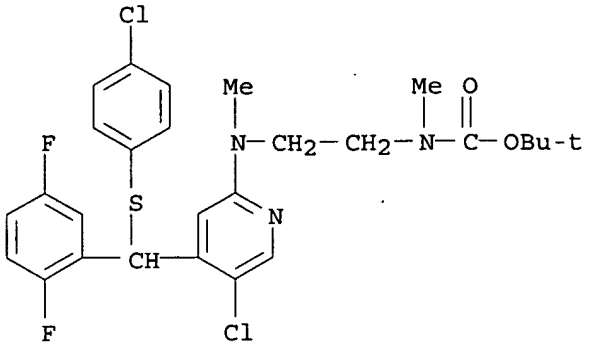
RN 558464-87-2 HCAPLUS
CN Morpholine, 4-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



RN 558464-90-7 HCAPLUS
CN 4-Morpholineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, 4-oxide (9CI) (CA INDEX NAME)

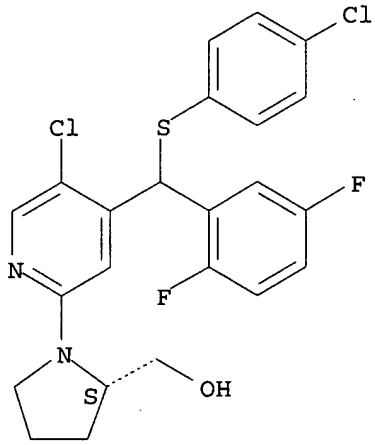


RN 558465-37-5 HCAPLUS
CN Carbamic acid, [2-[[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

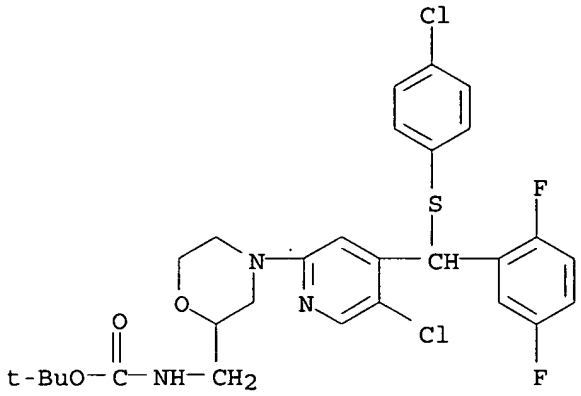


RN 558465-40-0 HCAPLUS
CN 2-Pyrrolidinemethanol, 1-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-, (2S)- (9CI) (CA INDEX NAME)

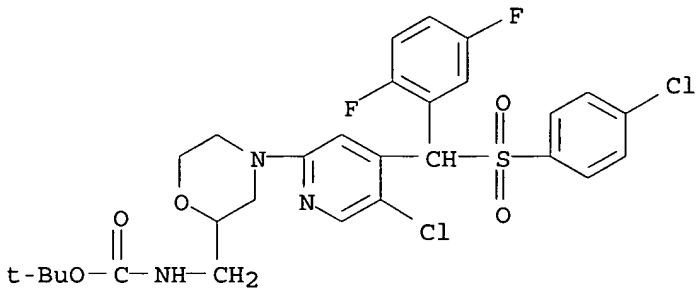
Absolute stereochemistry.



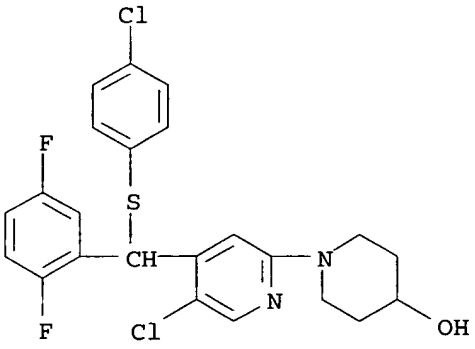
RN 558465-42-2 HCAPLUS
CN Carbamic acid, [[4-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-morpholinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 558465-43-3 HCAPLUS
CN Carbamic acid, [[4-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-2-morpholinyl]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



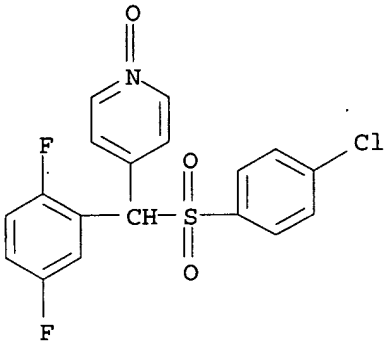
RN 558465-45-5 HCAPLUS
CN 4-Piperidinol, 1-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



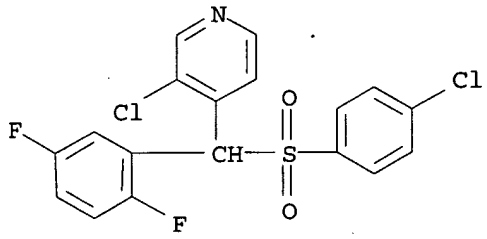
IT ***558464-81-6P 558464-84-9P 558464-85-0P 558464-86-1P 558464-88-3P 558464-89-4P 558465-36-4P 558465-38-6P 558465-39-7P***

558465-41-1P 558465-44-4P 558465-46-6P
RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of benzyl or heterocyclylmethyl Ph or heterocyclyl sulfones as β-amyloid protein production/secretion inhibitors for treatment or preparation of ***Alzheimer***'s disease or Down's syndrome)

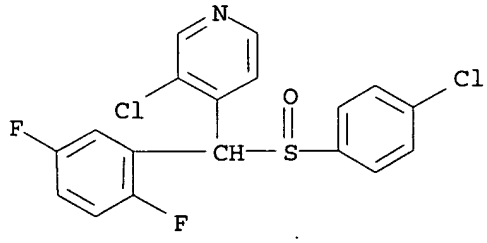
RN 558464-81-6 HCAPLUS
CN Pyridine, 4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-, 1-oxide (9CI) (CA INDEX NAME)



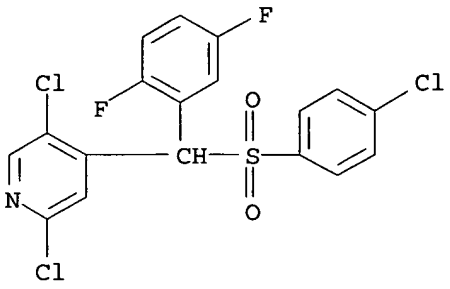
RN 558464-84-9 HCAPLUS
CN Pyridine, 3-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



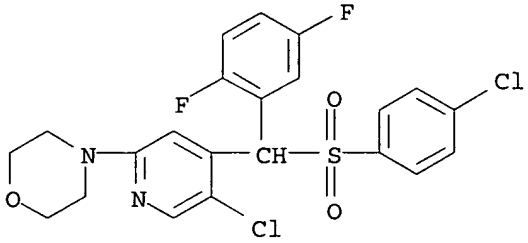
RN 558464-85-0 HCAPLUS
CN Pyridine, 3-chloro-4-[[(4-chlorophenyl)sulfinyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



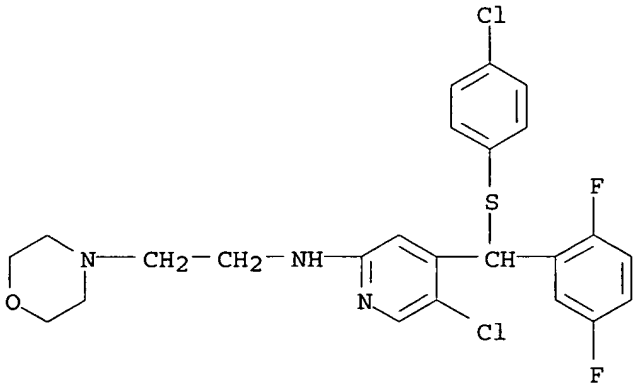
RN 558464-86-1 HCAPLUS
CN Pyridine, 2,5-dichloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]- (9CI) (CA INDEX NAME)



RN 558464-88-3 HCAPLUS
CN Morpholine, 4-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

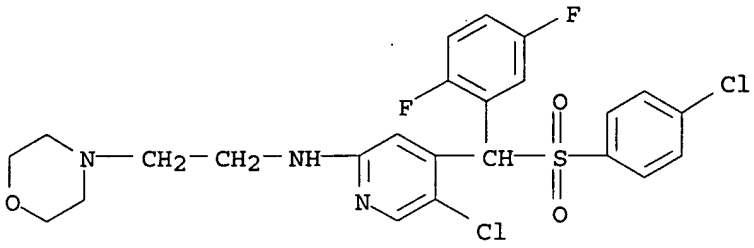


RN 558464-89-4 HCAPLUS
CN 4-Morpholineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)thio](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)

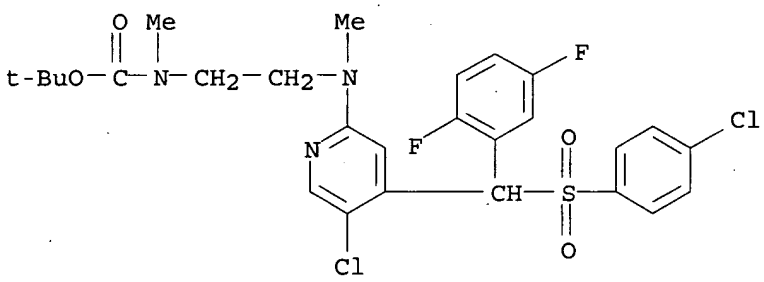


RN 558465-36-4 HCAPLUS
CN 4-Morpholineethanamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-

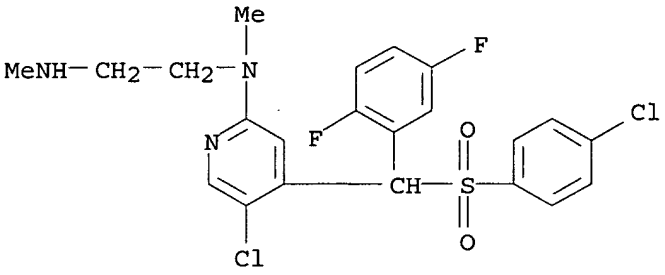
difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



RN 558465-38-6 HCAPLUS
CN Carbamic acid, [2-[[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]methylamino]ethyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

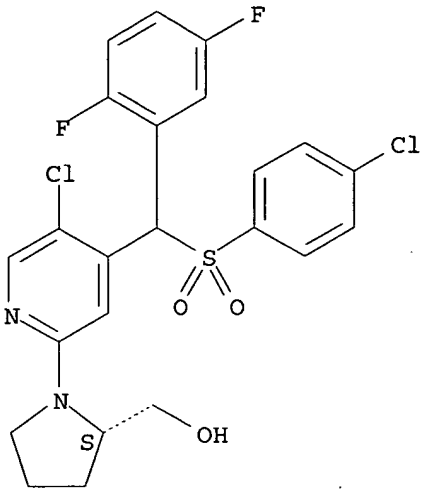


RN 558465-39-7 HCAPLUS
CN 1,2-Ethanediamine, N-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-N,N'-dimethyl- (9CI) (CA INDEX NAME)

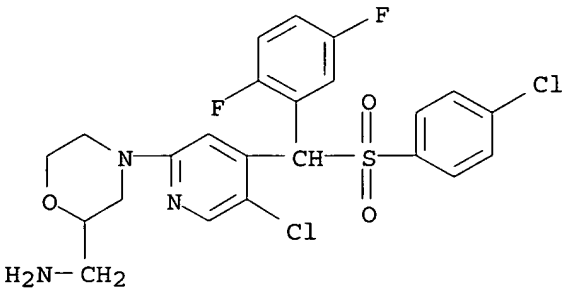


RN 558465-41-1 HCAPLUS
CN 2-Pyrrolidinemethanol, 1-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]-, (2S)- (9CI) (CA INDEX NAME)

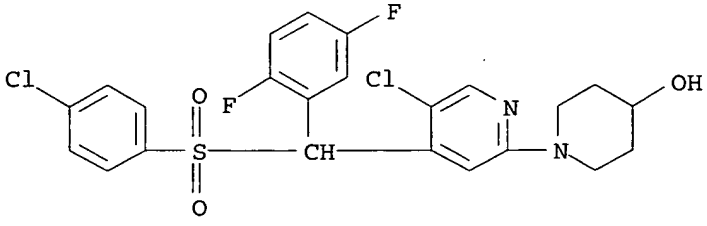
Absolute stereochemistry.



RN 558465-44-4 HCAPLUS
CN 2-Morpholinemethanamine, 4-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



RN 558465-46-6 HCAPLUS
CN 4-Piperidinol, 1-[5-chloro-4-[[(4-chlorophenyl)sulfonyl](2,5-difluorophenyl)methyl]-2-pyridinyl]- (9CI) (CA INDEX NAME)



RETABLE

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Basf A -G	1978			EP 112 A1	HCAPLUS
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Ishibashi, H	1991	39	1148	Chemical & Pharmaceu	HCAPLUS
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Walker, K	1977	51	4475	Tetrahedron Letters	
Wragg, A	1958		3603	J Chem Soc	HCAPLUS

L16 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:92347 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 138:119298
TITLE: Cytochrome P450 substrates and their use as optical sensors in screening for cytochrome p450 modulators
INVENTOR(S): Makings, Lewis R.; Zlokarnik, Gregor
PATENT ASSIGNEE(S): Vertex Pharmaceuticals (San Diego), L.L.C., USA
SOURCE: U.S., 68 pp., Cont.-in-part of U.S. Ser. No. 301,525.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6514687	B1	20030204	US 1999-458927	19991210
US 6420130	B1	20020716	US 1999-301525	19990428

US 2003027238	A1	20030206	US 2001-995961	20011127
US 6638713	B2	20031028		
US 2003186349	A1	20031002	US 2002-327022	20021220
US 7132252	B2	20061107		

PRIORITY APPLN. INFO.: US 1998-112252P P 19981214
US 1999-301525 A2 19990428
US 1999-458927 A1 19991210

OTHER SOURCE(S): MARPAT 138:119298

AB The invention provides a compound, useful as an optical probe or sensor of the activity of at least one cytochrome P 450 enzyme, and methods of using the compound to screen candidate drugs, and candidate drugs identified by these methods. The optical probe of the invention is a compound having the generic structure Y-L-Q, (Y = Q, saturated C1-C20 alkyl, unsatd. C1-C20 alkenyl, unsatd. C1-C20 alkynyl, substituted saturated C1-C20 alkyl, substituted unsatd. C1-C20 alkenyl, substituted unsatd. C1-C20 alkynyl, C1-C20 cycloalkyl, C1-C20 cycloalkenyl, substituted saturated C1-C20 cycloalkyl, substituted unsatd. C1-C20 cycloalkenyl, aryl, substituted aryl, heteroaryl and substituted heteroaryl; L = (-OCR2H)p-, wherein for each p, all R2 = H, saturated C1-C20 alkyl, unsatd. C1-C20 alkenyl, unsatd. C1-C20 alkynyl, substituted saturated C1-C20 alkyl, substituted unsatd. C1-C20 alkenyl, substituted unsatd. C1-C20 alkynyl, C1-C20 cycloalkyl, C1-C20 cycloalkenyl, substituted saturated C1-C20 cycloalkyl, substituted unsatd. C1-C20 cycloalkenyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl; p = 1-12; Q = chemical moiety that gives rise to optical properties in its hydroxy or hyrdoxylate, phenol or phenoxide form that are different from the optical properties that arise from its ether form). Most preferably, p is one, R2 is hydrogen, and Q is the ether form of a phenoxide fluorophore. Thus, new substrates suitable for high throughput screening of CYP 3A4, CYP 2C19, CYP 2C9, CYP 1A2, and CYP 2B6 were synthesized and their kinetic properties were analyzed. Benzyloxymethylresorufin (BOMR) and 7-benzyloxymethyloxy-3-cyanocoumarin (BOMCC) were used to identify inhibitors of CYP 3A4.

IC ICM C12Q001-100
ICS C12Q001-26; C12Q001-68

INCL 435004000; 435025000; 435968000; 435011000; 435094200; 435006000

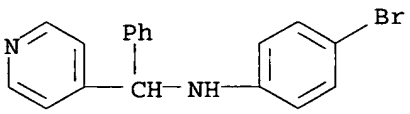
CC 7-3 (Enzymes)
Section cross-reference(s): 1

IT 284664-25-1 313660-77-4 ***413619-64-4*** 490017-21-5
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(CYP 3A4 inhibitor; cytochrome P 450 substrates and their use as optical sensors in screening for cytochrome P 450 modulators)

IT ***413619-64-4***
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(CYP 3A4 inhibitor; cytochrome P 450 substrates and their use as optical sensors in screening for cytochrome P 450 modulators)

RN 413619-64-4 HCAPLUS

CN 4-Pyridinemethanamine, N-(4-bromophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



RETABLE

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Aitio	1978	85	488	Analyt Biochem	HCAPLUS
Anon	1984			EP 0110682	HCAPLUS
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Anon	1990			EP 0363793	HCAPLUS
Anon	1997			WO 9739064	HCAPLUS
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Berman	1997	40	827	J of Medicinal Chemi	HCAPLUS
Burke	1983	212	15	Biochem J	HCAPLUS
Burke	1985	34	3337	Biochemical Pharmaco	HCAPLUS
Buters, J	1993	46	1577	Biochemical Pharmaco	HCAPLUS
Crespi	1997	43	171	Advances in Pharmaco	HCAPLUS
Crespi	1997	248	188	Analytical Biochemis	HCAPLUS
Deluca	1988	37	1731	Biochemical Pharmaco	HCAPLUS
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Fabacher	1980	11	429	Gen Pharmacol	HCAPLUS
Gotoh	1992	267	83	J of Biological Chem	HCAPLUS
Grant, K	1988	110	301	J Am Chem Soc	
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Haasch, M	1994	47	893	Biochemical Pharmaco	HCAPLUS
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Krafft, G	1988	110	301	Journal of the Ameri	HCAPLUS
Kronbach	1987	162	24	Analytical Biochemis	HCAPLUS
Kulkarni	1976	6	183	Pestic Biochem Physi	HCAPLUS
Mace	1997	10	85	In Vitro Toxicology	HCAPLUS
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Marrone	1992			US 5110725 A	HCAPLUS
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Marrone	1991	128	2654	Endocrinology	HCAPLUS
Mary, H	1994	47	893	Biochemical Pharmaco	
Mayer	1989	38	1364	Biochemical Pharmaco	HCAPLUS
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Miller	1983	133	46	Analytical Biochemis	HCAPLUS
Mologni	1999	93	1045	Blood	HCAPLUS
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Yoshiaki, O	1986	870	392	Biochemica et Biophy	

L16 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:353278 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 136:369718
TITLE: Preparation of Δ2-1,2,3-triazoline anticonvulsants and their active metabolite analogues, the aminoalkylpyridines which are excitatory amino acid antagonists and antiischemic agents, useful in the treatment of cerebral ischemia resulting from stroke
INVENTOR(S): Kadaba, Pankaja K.
PATENT ASSIGNEE(S): K and K Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002036119	A1	20020510	WO 2001-US42898		20011102
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2002024478	A5	20020515	AU 2002-24478		20011102
US 2002111371	A1	20020815	US 2001-985318		20011102
US 6638954	B2	20031028			
EP 1343497	A1	20030917	EP 2001-992571		20011102
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2004073039	A1	20040415	US 2003-679420		20031007
US 2006058357	A1	20060316	US 2005-255975		20051024
PRIORITY APPLN. INFO.:			US 2000-244930P	P	20001102
			US 2001-307360P	P	20010725
			US 2001-985318	A3	20011102
			WO 2001-US42898	W	20011102
			US 2003-679420	A1	20031007

OTHER SOURCE(S): MARPAT 136:369718
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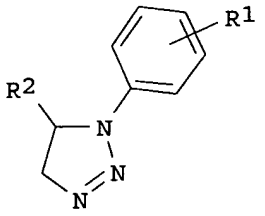

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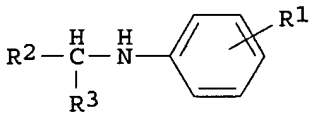

II

AB The title non-neurotoxic antiischemic compds. [I (wherein R2 = 4-pyridyl, 3-pyridyl, 2-oxo-1-pyrrolidino; R1 = 3,4- or 3,5-Cl2, p- or m-Cl, p- or m-Br, p- or m-F, p- or m-CF3, p-Me, p-MeO, H) and II (R2 = 4-pyridyl, 3-pyridyl; R3 = H, Me, Et; R1 = 3,4- or 3,5-Cl2, p- or m-Cl, p- or m-Br, p- or m-F, p- or m-CF3, p-Me, p-MeO, H)] that are highly effective by the i.p. route, and that are excitatory amino acid and NMDA/sigma receptor antagonists, were prepared General procedures for synthesis of I and II and their biol. data were given.

IC ICM A61K031-41
ICS A61K031-44; C07D213-02; C07D249-06

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

IT 3034-32-0P 16552-48-0P 16552-49-1P 17843-17-3P 29078-51-1P
29078-55-5P 29078-57-7P 29083-30-5P 29083-47-4P 30387-97-4P
55643-87-3P 55643-88-4P 55643-89-5P 55643-90-8P 55643-92-0P
97230-32-5P 97230-33-6P 97230-34-7P 97230-35-8P 106878-43-7P
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110684-09-8P 110684-13-4P 110684-15-6P 113248-58-1P 113248-83-2P
121318-95-4P 121318-96-5P 137642-06-9P 139871-50-4P 139871-51-5P
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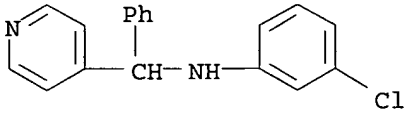
152127-35-0P 166110-81-2P ***177962-94-6P 177962-95-7P***
177962-99-1P 193338-99-7P 193339-00-3P 193339-01-4P
239116-87-1P ***239116-88-2P*** 280559-95-7P 280559-96-8P
413619-64-4P 413619-65-5P 413619-66-6P
423178-51-2P 423178-52-3P 423178-53-4P 423178-54-5P 423178-55-6P
423178-56-7P 423178-57-8P 423178-58-9P 423178-59-0P 423178-60-3P
423178-61-4P 423178-62-5P 423178-63-6P 423178-64-7P 423178-65-8P
423178-66-9P 423178-67-0P 423178-68-1P 423178-69-2P 423178-70-5P
423178-71-6P 423178-72-7P 423178-73-8P 423178-74-9P 423178-75-0P
423178-76-1P 423178-77-2P 423178-78-3P 423178-79-4P 423178-80-7P
423178-81-8P 423178-82-9P 423178-83-0P 423178-84-1P 423178-85-2P
423178-86-3P 423178-87-4P 423178-88-5P 423178-89-6P 423178-90-9P
423178-91-0P 423178-92-1P 423178-93-2P 423178-94-3P 423178-95-4P
423178-96-5P 423178-97-6P 423178-98-7P
423178-99-8P 423179-00-4P 423179-01-5P 423179-02-6P
423179-03-7P 423179-04-8P 423179-05-9P 423179-06-0P 423179-07-1P
423179-08-2P 423179-09-3P 423179-10-6P 423179-11-7P 423179-12-8P
423179-13-9P 423179-14-0P 423179-15-1P 423179-16-2P 423179-17-3P
423179-18-4P ***423179-19-5P 423179-20-8P***
423179-21-9P
RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of Δ2-1,2,3-triazoline anticonvulsants and aminoalkylpyridines as excitatory amino acid antagonists and

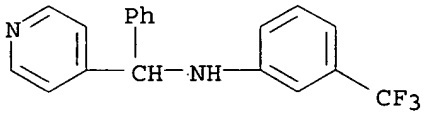
antiischemic agents)

IT ***177962-94-6P 177962-95-7P 177962-99-1P 239116-88-2P 413619-64-4P 413619-65-5P 413619-66-6P 423178-96-5P 423178-97-6P 423178-98-7P 423178-99-8P 423179-19-5P 423179-20-8P 423179-21-9P***
RL: ***PAC (Pharmacological activity)***; SPN (Synthetic preparation); ***THU (Therapeutic use)***; BIOL (Biological study); ***PREP (Preparation)***; USES (Uses)
(preparation of Δ2-1,2,3-triazoline anticonvulsants and aminoalkylpyridines as excitatory amino acid antagonists and antiischemic agents)

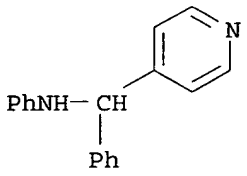
RN 177962-94-6 HCAPLUS
CN 4-Pyridinemethanamine, N-(3-chlorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



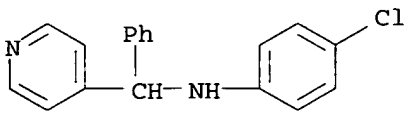
RN 177962-95-7 HCAPLUS
CN 4-Pyridinemethanamine, α-phenyl-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



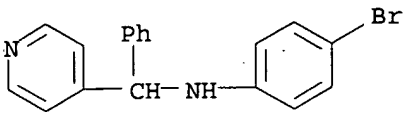
RN 177962-99-1 HCAPLUS
CN 4-Pyridinemethanamine, N,α-diphenyl- (9CI) (CA INDEX NAME)



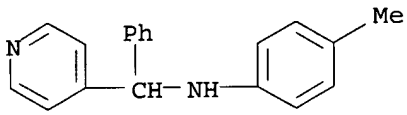
RN 239116-88-2 HCAPLUS
CN 4-Pyridinemethanamine, N-(4-chlorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



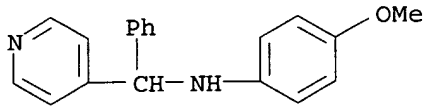
RN 413619-64-4 HCAPLUS
CN 4-Pyridinemethanamine, N-(4-bromophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



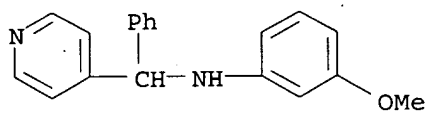
RN 413619-65-5 HCAPLUS
CN 4-Pyridinemethanamine, N-(4-methylphenyl)-α-phenyl- (9CI) (CA INDEX NAME)



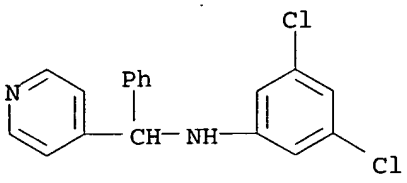
RN 413619-66-6 HCAPLUS
CN 4-Pyridinemethanamine, N-(4-methoxyphenyl)-α-phenyl- (9CI) (CA INDEX NAME)



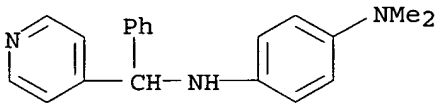
RN 423178-96-5 HCAPLUS
CN 4-Pyridinemethanamine, N-(3-methoxyphenyl)-α-phenyl- (9CI) (CA INDEX NAME)



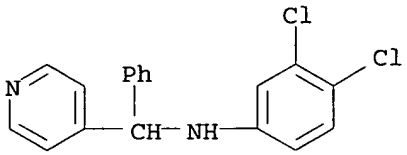
RN 423178-97-6 HCAPLUS
CN 4-Pyridinemethanamine, N-(3,5-dichlorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



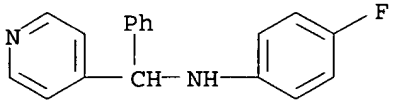
RN 423178-98-7 HCAPLUS
CN 1,4-Benzenediamine, N,N-dimethyl-N'-(phenyl-4-pyridinylmethyl)- (9CI) (CA INDEX NAME)



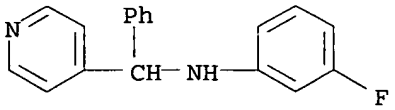
RN 423178-99-8 HCAPLUS
CN 4-Pyridinemethanamine, N-(3,4-dichlorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



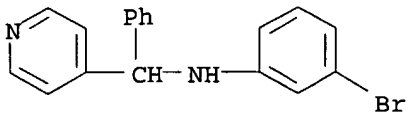
RN 423179-19-5 HCAPLUS
CN 4-Pyridinemethanamine, N-(4-fluorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



RN 423179-20-8 HCAPLUS
CN 4-Pyridinemethanamine, N-(3-fluorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



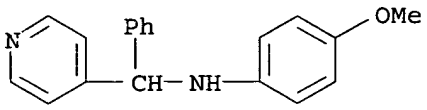
RN 423179-21-9 HCAPLUS
CN 4-Pyridinemethanamine, N-(3-bromophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Kadaba	1987			US 4689334 A	HCAPLUS
Kadaba	1989			US 4820721 A	HCAPLUS
Kadaba	1997			US 5648369 A	HCAPLUS

L16 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:213449 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 132:347470
TITLE: Reduction of N-[α-(4-pyridyl)benzylidene]anisidine with NaBH4 in the presence of NiCl2
AUTHOR(S): Kalashnikov, V. V.; Kalashnikova, I. P.
CORPORATE SOURCE: Institute of Physiologically Active Substances, Russian Academy of Sciences, Chernogolovka, 142432, Russia
SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (1999), 35(9), 1402-1403
CODEN: RJOCEQ; ISSN: 1070-4280
PUBLISHER: MAIK Nauka/Interperiodica Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:347470
AB The preparation and nickel chloride-mediated borohydride reduction of 4-methoxy-N-[phenyl(4-pyridinyl)methylene]benzenamine (Schiff base) to N-(4-methoxyphenyl)-α-phenyl-4-pyridinemethanamine dihydrochloride were reported. In the absence of nickel chloride no reaction occurred.
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
IT ***269403-14-7P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
IT ***269403-14-7P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
RN 269403-14-7 HCAPLUS
CN 4-Pyridinemethanamine, N-(4-methoxyphenyl)-α-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

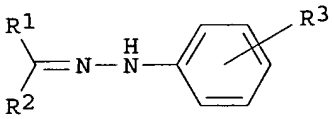
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Ganem, B	1986	86	763	Chem Rev	HCAPLUS
Layer, R	1963	63	489	Chem Rev	
Okubo, M	1980	53	281	Bull Chem Soc Jpn	HCAPLUS

L16 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:537949 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 131:170270
TITLE: Hydrazones, hydrazines, semicarbazones and thiosemicarbazones derived from pyridyl ketones as anticonvulsant drugs and excitatory amino acid antagonists
INVENTOR(S): Kadaba, Pankaja K.; Lin, Zhaiwei
PATENT ASSIGNEE(S): K & K Biosciences, Inc., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5942527	A	19990824	US 1997-917925	19970827

PRIORITY APPLN. INFO.: US 1997-917925 19970827
OTHER SOURCE(S): MARPAT 131:170270
GI



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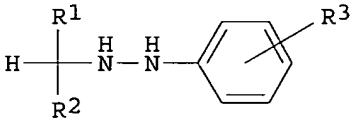
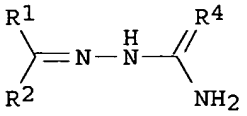
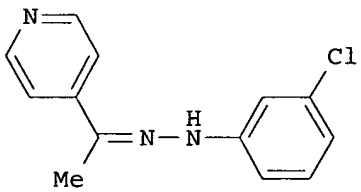


II



III



IV

AB Pharmaceutical compns. comprise, as the active ingredients, hydrazones, hydrazines, and semicarbazones of the formulas I, II, and III [wherein R1 = 4-pyridyl or 3-pyridyl; R2 = Me, Et, Ph; R3 = 3,4-dichloro, p-chloro, or m-chloro; R4 = O or S]. The compds. are potent, orally active, nonneurotoxic anticonvulsants that are highly effective in the MES animal model, and are excitatory amino acid antagonists. The compns. are administered at dosages ranging from about 10 mg/kg to 200 mg/kg of body weight The hydrazones I were prepared by condensation of pyridyl ketones with phenylhydrazine hydrochlorides. The hydrazones I were reduced with BH3.THF to give the hydrazines II. Condensation of pyridyl ketones with semicarbazide gave the semicarbazones III. For instance, condensation of 3-ClC6H4NHNH2.HCl with Me 4-pyridyl ketone in refluxing aqueous MeOH gave 77% title hydrazone IV. The latter had ED50 of 81.78 mg/kg i.p. in mice in the maximal electroshock seizure test, with a TD50 of 441.28 mg/kg in the rotorod test.

IC ICM C07D213-02
ICS A61K031-44

INCL 514357000

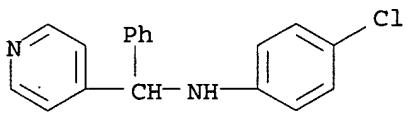
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1

IT 29078-51-1, (4-Chlorophenyl)[1-(3-pyridyl)ethyl]amine 239116-87-1, (3-Chlorophenyl)[1-(3-pyridyl)ethyl]amine ***239116-88-2***, (4-Chlorophenyl)[phenyl(4-pyridyl)methyl]amine
RL: ***BAC (Biological activity or effector, except adverse)***; BSU (Biological study, unclassified); BIOL (Biological study)
(comparison compound; preparation of hydrazones, hydrazines, semicarbazones, and thiosemicarbazones from pyridyl ketones as anticonvulsants and excitatory amino acid antagonists)

IT ***239116-88-2***, (4-Chlorophenyl)[phenyl(4-pyridyl)methyl]amine
RL: ***BAC (Biological activity or effector, except adverse)***; BSU (Biological study, unclassified); BIOL (Biological study)
(comparison compound; preparation of hydrazones, hydrazines, semicarbazones, and thiosemicarbazones from pyridyl ketones as anticonvulsants and excitatory amino acid antagonists)

RN 239116-88-2 HCAPLUS

CN 4-Pyridinemethanamine, N-(4-chlorophenyl)-α-phenyl- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon				Chemical Abstracts,	
Anon				Chemical Abstracts,	
Butler	1984		2109	J Chem So Perkin Tra	HCAPLUS
Cesti	1990			US 4933290	HCAPLUS
Chu	1958	23	1578	Journal of Organic C	HCAPLUS
Da Re	1960	25	1097	Synthesis of Powerfu	HCAPLUS
Davison	1955		3389	Infrared Spectra of	HCAPLUS
Deshmukh	1993	3	223	Medicinal Chemistry	HCAPLUS

Felder	1955		386	Piridinaldeidi	
Ferrari	1987			US 4683245	HCAPLUS
Foster	1984	7	103	Brain Research Revie	HCAPLUS
Foster, A	1986		303	Involvement of Excit	HCAPLUS
Giordano	1989			US 4888433	HCAPLUS
Huntress	1948	70	3702	Beckmann Rearrangeme	HCAPLUS
Kadaba	1985			US 4511572	HCAPLUS
Kadaba	1986			US 4610994	HCAPLUS
Kadaba	1986			US 4618681	HCAPLUS
Kadaba	1987			US 4689334	HCAPLUS
Kadaba	1989			US 4820721	HCAPLUS
Kadaba	1996	4	165	Bioorganic & Medicin	HCAPLUS
Karabatsos		84	753	JACS	HCAPLUS
Kolb	1989	54	2341	J Org Chem	HCAPLUS
Kuhn	1952	85	28	Vogel Jahrg	
Kyle	1996			US 5521158	HCAPLUS
Lukevics	1995	30	983	Eur J Med Chem	HCAPLUS
Matsuyama	1996			US 5554532	HCAPLUS
Meldrum, B	1986		321	Excitatory Amino Aci	HCAPLUS
Nelson	1955	77	1908	JACS	HCAPLUS
Pfenninger	1969	70	331		HCAPLUS
Popp, F	1989	24	313	Eur J Med Chem	
Popp, F	1984	21	1641	J Heterocyclic Chem	HCAPLUS
Popp, F	1984	21	617	J Heterocyclic Chem	HCAPLUS
Porter	1989		287	Basic and Clinical P	
Porter	1984	51	293	Cleveland Clinic Qua	MEDLINE
Porter, R	1989	30	S29	Epilepsia	
Stenberg	1968	33	4402	The Journal of Organ	HCAPLUS
Teague	1953	75	3429	Some Pyridylhydantoi	HCAPLUS
Thummel	1989	54	1720	J Org Chem	HCAPLUS
Wallach	1981	663	361	Biochim Biophysica A	HCAPLUS
Watkins	1981	21	165	Ann Rev Pharmacol To	HCAPLUS

L16 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:317546 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 130:311700
TITLE: Preparation of 4-pyridylmethylamine derivatives
INVENTOR(S): Zeng, Xianmou; Cai, Jiaqiang; Chen, Xiwen; Jiang, Xiaojun; Gu, Yijian
PATENT ASSIGNEE(S): Dalian Inst. of Chemicophysics, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1114311	A	19960103	CN 1994-110357	19940630

PRIORITY APPLN. INFO.: CN 1994-110357 19940630
OTHER SOURCE(S): MARPAT 130:311700
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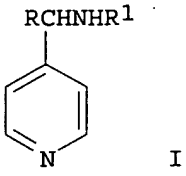


I

AB Title compds. [I; R, R1 is aryl group or substitute aryl group with substituting group CH3, C2H5, F, Cl, CF3, N(CH3)2, OCH3, etc. and R, R1 is same or different] are prepared by decyanation amino hydrocarbylation of 4-cyanopyridine and imine RCH=NR1 in organic ether solvent in the presence of Na under anhydrous and anaerobic condition at -10 to 50° for 8-12 h. The chemical equivalent ratio of Na, imine and 4- cyanopyridine is 2.5-3.5:1:1, and the organic ether solvent is Et ether, THF, diethylene glycol di-Me ether, 1,2-dimethoxyethane, or 1,4-dioxoethane, or their mixture

IC ICM C07D213-04
ICS A61K031-435

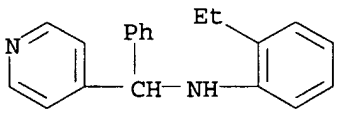
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

IT ***177962-91-3P 177962-92-4P 177962-93-5P 177962-95-7P 177962-98-0P 177962-99-1P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of pyridylmethylamine derivs.)

IT ***177962-91-3P 177962-92-4P 177962-93-5P 177962-95-7P 177962-98-0P 177962-99-1P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of pyridylmethylamine derivs.)

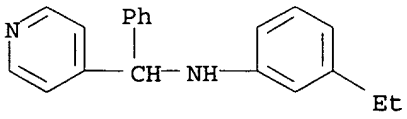
RN 177962-91-3 HCAPLUS

CN 4-Pyridinemethanamine, N-(2-ethylphenyl)-α-phenyl- (9CI) (CA INDEX NAME)



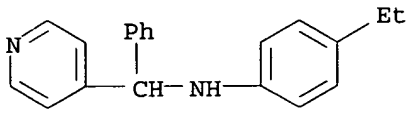
RN 177962-92-4 HCAPLUS

CN 4-Pyridinemethanamine, N-(3-ethylphenyl)-α-phenyl- (9CI) (CA INDEX NAME)

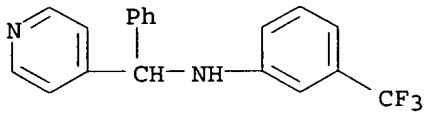


RN 177962-93-5 HCAPLUS

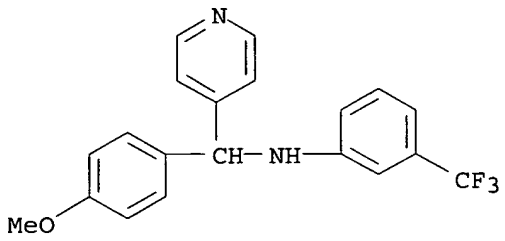
CN 4-Pyridinemethanamine, N-(4-ethylphenyl)-α-phenyl- (9CI) (CA INDEX NAME)



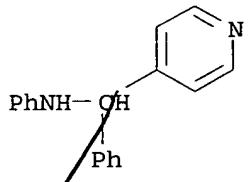
RN 177962-95-7 HCAPLUS
CN 4-Pyridinemethanamine, α-phenyl-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 177962-98-0 HCAPLUS
CN 4-Pyridinemethanamine, α-(4-methoxyphenyl)-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 177962-99-1 HCAPLUS
CN 4-Pyridinemethanamine, N,α-diphenyl- (9CI) (CA INDEX NAME)



L16 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:15415 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 126:143931
TITLE: The rearrangement of N-triarylmethyl anilines to their p-triarylmethyl derivatives
AUTHOR(S): Siskos, Michael G.; Tzerpos, Nikolaos; Zarkadis, Antonios
CORPORATE SOURCE: Dep. Chem., Univ. of Ioannina, Ioannina, 45110, Greece
SOURCE: Bulletin des Societes Chimiques Belges (1996), 105(12), 759-768

CODEN: BSCBAG; ISSN: 0037-9646
PUBLISHER: Societe Chimique Belges
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The rearrangement reaction of (triarylmethyl)benzenamines was studied. The compds. underwent a Hofmann Martius rearrangement to p-triarylmethyl derivs. when heated with equimolar amts. of Ph+NH3Cl-. The latter catalyzed the rearrangement probably through the formation of an instable anilinium salt that serves as a triarylcarbonium source. The triarylcarbonium in a second step (electrophilic aromatic substitution) gave with excess of ArNH2 p-substituted aniline derivs. A free radical mechanism, reasonable in view of the high temperature used (.apprx.185°C), could be excluded; N-(triarylmethyl)anilines underwent homolysis of the C-N bond to triarylmethyl radicals at temperature higher than 200°C, a fact which was established using ESR spectroscopy and product anal.

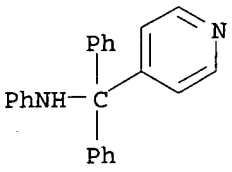
CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 22

IT 3756-43-2P 4390-61-8P 20222-29-1P 20222-30-4P 20222-31-5P
20360-17-2P 22948-06-7P 168333-55-9P ***168333-56-0P***
186639-10-1P 186639-11-2P
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(rearrangement of N-(triarylmethyl)anilines)

IT ***168333-56-0P***
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(rearrangement of N-(triarylmethyl)anilines)

RN 168333-56-0 HCAPLUS

CN 4-Pyridinemethanamine, N,α,α-triphenyl- (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Bachman, G	1959	24	1696	J Org Chem	HCAPLUS
Barlos, K	1989	30	3943	Tetrahedron Lett	HCAPLUS
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Battegay, M	1924	35	993	Bull Soc Chim France	
Benkeser, R	1956	78	4914	J Am Chem Soc	HCAPLUS
Birchall, J	1972		2579	J Chem Soc Perkin I	HCAPLUS
Boyd, D	1928		630	J Am Chem Soc	HCAPLUS
Boyd, S	1995	117	8816	J Am Chem Soc	HCAPLUS
Chuchani, G	1959		1753	J Chem Soc	HCAPLUS
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Dahn, H	1980	63	780	Helv Chim Acta	HCAPLUS

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Goldscmidt, S	1922	55	3216	Ber Dtsch Chem Ges	
Gomberg, M	1900	33	3150	Ber Dtsch Chem Ges	HCAPLUS
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Graig, D	1949	71	2250	J Am Chem Soc	
Grillot, G	1971		237	Mechanisms of Molecu	HCAPLUS
Hart, H	1962	27	116	J Org Chem	HCAPLUS
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Lu Pes, M	1972	17	1253	Rev Roum Chim	HCAPLUS
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Ogata, Y	1970	35	1642	J Org Chem	HCAPLUS
Ogata, Y	1964	20	2717	Tetrahedron	HCAPLUS
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Olah, G	1963	II		Friedel-Grafts and R	
Roberts, R	1984			Friedel-Grafts Alkyl	
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Sieber, P	1991	32	739	Tetrahedron Lett	HCAPLUS
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Smith, W	1981	22	2055	Tetrahedron Lett	HCAPLUS
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Tzerpos, N	1995		755	J Chem Soc Perkin Tr	HCAPLUS
Ullman, F	1903	36	404	Ber Dtsch Chem Ges	
van der Hart, W	1970	19	75	Mol Phys	HCAPLUS
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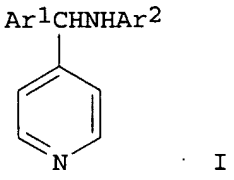
Verkade, P	1964	83	696	Rec Trav Chem	HCAPLUS
Weiss, R	1973	776	301	Lieb Ann Chem	
Wieland, H	1919	52	893	Ber Dtsch Chem Ges	
Zervas, L	1956	78	1359	J Am Chem Soc	HCAPLUS

L16 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:271989 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 125:58283
TITLE: A novel aminoalkylation-decyanation of 4-pyridinecarbonitrile with imines: a facile selective synthesis of 4-pyridinemethanamines
AUTHOR(S): Zeng, Xianmou; Chen, Xiwen; Cai, Jiaqiang; Jiang, Xiaoyun; Gu, Yijian
CORPORATE SOURCE: Dalian Inst. Chem. Phys., Academia Sinica, Dalian, 116012, Peop. Rep. China
SOURCE: Tetrahedron Letters (1996), 37(17), 3009-10
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:58283
GI



I

AB Reactions of 4-pyridinecarbonitrile with sodium and aromatic imines Ar1CH:NAr2 (Ar1 = Ph, Ar2 = Ph, 2-MeC6H4, 2-, 3-, 4-EtC6H4, 3-ClC6H4, 3-F3CC6H4, 4-EtOC6H4; Ar1 = 4-MeOC6H4, Ar2 = Ph, 3-F3CC6H4) provide a convenient and useful method for synthesizing 4-pyridinemethanamines I in good yields.

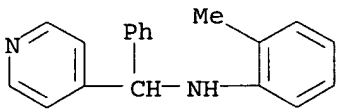
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

IT ***177962-90-2P 177962-91-3P 177962-92-4P 177962-93-5P 177962-94-6P 177962-95-7P 177962-96-8P 177962-97-9P 177962-98-0P 177962-99-1P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of pyridinemethanamines from pyridinecarbonitrile and imines)

IT ***177962-90-2P 177962-91-3P 177962-92-4P 177962-93-5P 177962-94-6P 177962-95-7P 177962-96-8P 177962-97-9P 177962-98-0P 177962-99-1P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of pyridinemethanamines from pyridinecarbonitrile and imines)

RN 177962-90-2 HCAPLUS

CN 4-Pyridinemethanamine, N-(2-methylphenyl)-α-phenyl- (9CI) (CA INDEX NAME)



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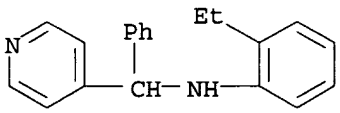

RN 177962-92-4 HCAPLUS
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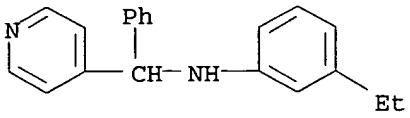

RN 177962-93-5 HCAPLUS
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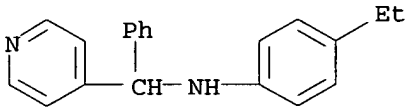

RN 177962-94-6 HCAPLUS
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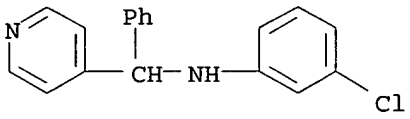

RN 177962-95-7 HCAPLUS
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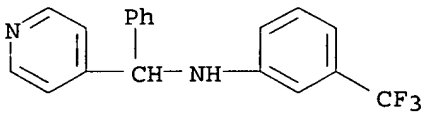

RN 177962-96-8 HCAPLUS
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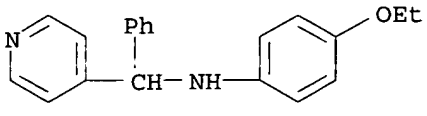

RN 177962-97-9 HCAPLUS
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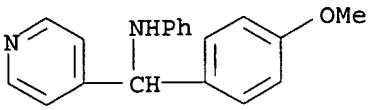

RN 177962-98-0 HCAPLUS
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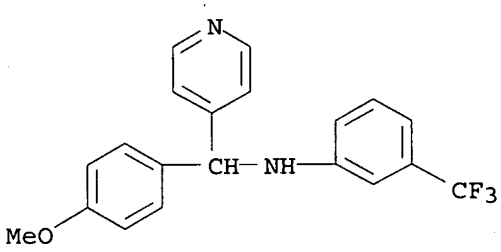
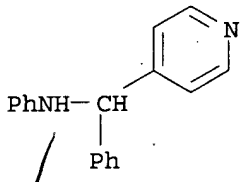
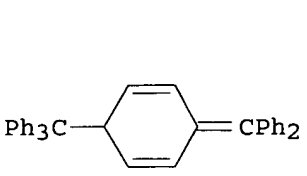


RN 177962-99-1 HCAPLUS
CN 4-Pyridinemethanamine, N,α-diphenyl- (9CI) (CA INDEX NAME)



L16 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:519251 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 123:227568
TITLE: Diphenylpyridylmethyl radicals. Part 1. Synthesis, dimerization and ENDOR spectroscopy of diphenyl(2-, 3- or 4-pyridyl)methyl radicals; bond dissociation enthalpies of their dimers
AUTHOR(S): Tzerpos, Nikolaos I.; Zarkadis, Antonios K.; Kreher, Richard P.; Repas, Liesel; Lehnig, Manfred
CORPORATE SOURCE: Dep. of Chemistry, Univ. of Ioannina, Ioannina, 45110, Greece
SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1995), (4), 755-61
CODEN: JCPKBH; ISSN: 0300-9580
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 123:227568
GI



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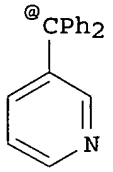

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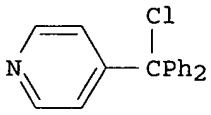

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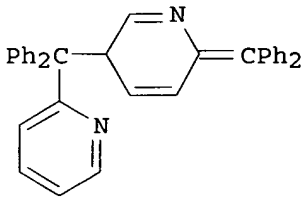

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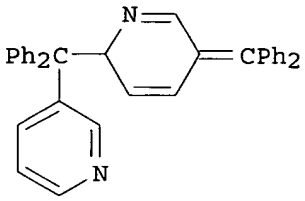

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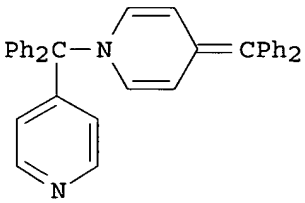


VI

AB Ortho-ortho hydrogen van der Waals repulsions are the origin of the propeller shape of the triphenylmethyl radical and the main reason for the low bond dissociation enthalpy (BDH) of its dimer I (44.8 J mol-1). In order to reduce these steric repulsions (eliminating some aromatic hydrogens), diphenyl(2-, 3- or 4-pyridyl)methyl radicals (e.g, II) were prepared through reductive dehalogenation of the corresponding triarylchloromethanes (e.g., III) with silver in benzene. They form α,p-dimers IV-VI exclusively through the pyridine ring. ENDOR spectroscopy shows that the structure of the radicals, does not deviate substantially from that of the parent radical, Ph3C•. In contrast, the BDH values of the dimers (measured using ESR spectroscopy) show strengthening of the central C-C bond in IV (88.7 kJ mol-1) and V (90.0 kJ mol-1) and a similar value for VI (46.4 kJ mol-1) with respect to the trityl dimer I. This is a consequence of the ground state stabilization of the dimers IV-VI due to relief of strain (elimination of ring hydrogens), whereas in the case of VI, this stabilization is probably compensated by the formation of a weaker C-N bond with respect to the C-C bond. The above dimers undergo easy 1,5-H-rearrangement, autocatalyzed by the basic pyridyl groups themselves.

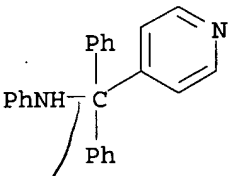
CC 22-13 (Physical Organic Chemistry)
Section cross-reference(s): 27

IT 594-81-0P, 2,3-Dibromo-2,3-dimethylbutane 1620-30-0P 3678-70-4P 4390-61-8P 19490-90-5P 19490-91-6P 37593-41-2P 42362-54-9P 53608-51-8P 64991-61-3P 101606-40-0P 107522-95-2P 109812-56-8P 168333-55-9P ***168333-56-0P*** 168333-57-1P 168333-58-2P
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP***

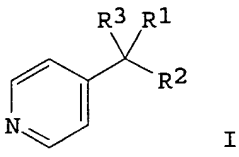
(Preparation); RACT (Reactant or reagent)
(bond dissociation enthalpies of dimers and preparation, dimerization and ENDOR
of diphenyl(2-, 3- or 4-pyridyl)methyl radicals)

IT ***168333-56-0P***
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP***
(Preparation); RACT (Reactant or reagent)
(bond dissociation enthalpies of dimers and preparation, dimerization and ENDOR
of diphenyl(2-, 3- or 4-pyridyl)methyl radicals)

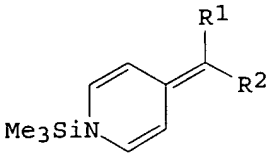
RN 168333-56-0 HCAPLUS
CN 4-Pyridinemethanamine, N,α,α-triphenyl- (9CI) (CA INDEX NAME)



L16 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:106051 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 116:106051
TITLE: Remote controlled nucleophilicity. 2. Lithiated Cα-substituted 4-methylpyridines
AUTHOR(S): Anders, Ernst; Opitz, Andreas; Bauer, Walter
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Germany
SOURCE: Synthesis (1991), (12), 1221-7
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



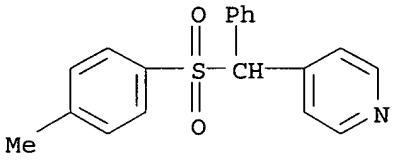
I



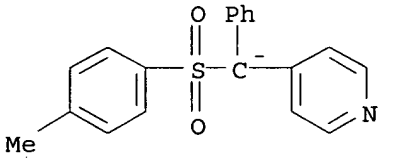
II

AB Cα-substituted 4-methylpyridines I (R1 = NMe2, 4-MeC6H4SO2, SiMe3, OMe, F, Cl, R2 = Ph, H, R3 = H) were N-lithiated and reacted with electrophiles (Me3SiCl, Me2CHBr, Ph2PCl, Ph2CO) to give methylenepyridines II (R1 = 4-MeC6H4SO2, R2 = Ph; R1 = NMe2, R2 = H) and I [R3 = CHMe2, SiMe3, Ph2C(OH), Ph2P(O)].
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
IT 6844-47-9 38222-85-4 70199-60-9 ***87732-48-7***
RL: ***PROC (Process)***

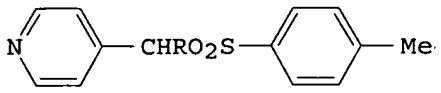
(lithiation and addition of, to electrophiles)
IT ***116665-12-4P*** 138761-38-3P 138761-39-4P 138761-40-7P 138761-41-8P
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation and addition of, to electrophiles)
IT ***87732-48-7***
RL: ***PROC (Process)***
(lithiation and addition of, to electrophiles)
RN 87732-48-7 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]- (9CI) (CA INDEX NAME)



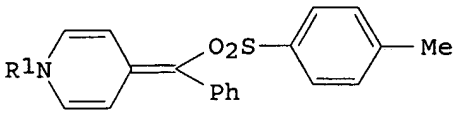
IT ***116665-12-4P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation and addition of, to electrophiles)
RN 116665-12-4 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-, ion(1-), lithium (9CI) (CA INDEX NAME)



L16 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:74541 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 110:74541
TITLE: Remote controlled nucleophilicity of anions of some 4-alkylpyridines: AM1- and MNDO-calculations, experimental tests
AUTHOR(S): Anders, Ernst; Korn, Uwe; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1989), 122(1), 105-11
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 110:74541
GI



I



II

AB Pyridine derivs. I (R = Ph, C6H4NO2-4, tosyl) were converted to Na salts with NaN(SiMe3)2, and the salts reacted with electrophiles to give dihydropyridines, e.g., II (R1 = cinnamoyl, Me3Si). Explanations of this behavior were provided by MO calcns. on model compds.

CC 22-4 (Physical Organic Chemistry)

IT ***87732-48-7***
RL: ***PROC (Process)***
(conversion of, to sodium salt and reaction with electrophiles)

IT ***116665-03-3P***
RL: ***PREP (Preparation)***
(formation and reaction with electrophiles)

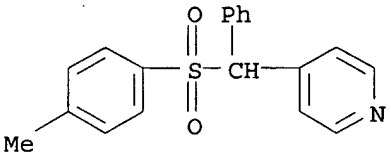
IT ***116665-01-1P*** 116665-02-2P
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation and conversion to sodium salt)

IT 95377-92-7P 116665-04-4P 116665-05-5P 116665-06-6P 116665-07-7P 116665-08-8P ***116665-09-9P*** ***116665-10-2P*** 116665-11-3P ***116665-12-4P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)

IT ***87732-48-7***
RL: ***PROC (Process)***
(conversion of, to sodium salt and reaction with electrophiles)

RN 87732-48-7 HCAPLUS

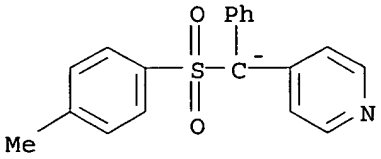
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]- (9CI) (CA INDEX NAME)



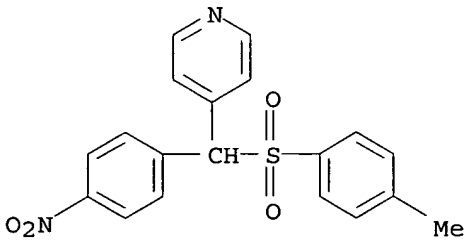
IT ***116665-03-3P***
RL: ***PREP (Preparation)***
(formation and reaction with electrophiles)

RN 116665-03-3 HCAPLUS

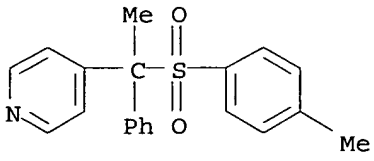
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-, ion(1-), sodium (9CI) (CA INDEX NAME)



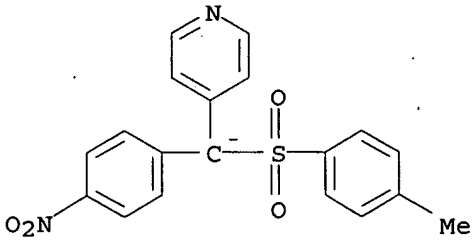
IT ***116665-01-1P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation and conversion to sodium salt)
RN 116665-01-1 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl](4-nitrophenyl)methyl]- (9CI) (CA INDEX NAME)



IT ***116665-09-9P 116665-10-2P 116665-12-4P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
RN 116665-09-9 HCAPLUS
CN Pyridine, 4-[1-[(4-methylphenyl)sulfonyl]-1-phenylethyl]- (9CI) (CA INDEX NAME)

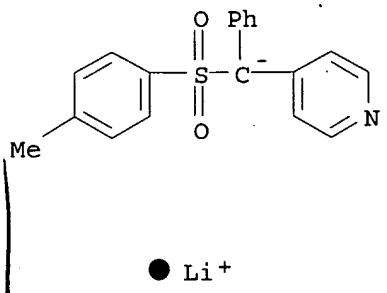


RN 116665-10-2 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl](4-nitrophenyl)methyl]-, ion(1-), sodium (9CI) (CA INDEX NAME)



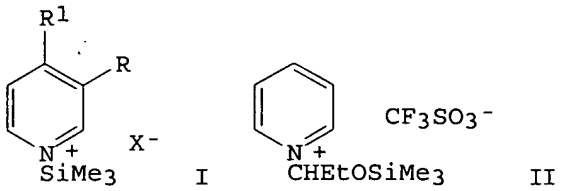
● Na^+

RN 116665-12-4 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-, ion(1-), lithium (9CI) (CA INDEX NAME)



● Li^+

L16 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:221768 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 108:221768
TITLE: Syntheses with N-trimethylsilylheteroarylium salts. Reactions with aldehydes, ketones, and carboxylic acids. Comparison of reactivity with analogous N-acylheteroarylium salts
AUTHOR(S): Anders, Ernst; Stankowiak, Achim; Riemer, Roland
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Synthesis (1987), (10), 931-4
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 108:221768
GI



I II

AB The title salts I (R = R1 = H, X = CF3SO3; R = H, R1 = 4-C6H4CH2, 4-MeC6H4SO2CHPh, X = iodo; R = H, R1 = 4-MeC6H4SO2CHPh, X = CF3SO3; RR1 = CH:CHCH:CH, X = CF3SO3) were prepared in 84-99% yields by the reaction of corresponding pyridines with Me3SiO3SCF3 or Me3SiI. I were efficient silylating reagent for carbonyl compds. and carboxylic acids. The reactivity of I is comparable to that of N-acylheteroarylium salts. In some cases (depending on the nature of the substrates), the silylating power of I can be stronger than the acylating power of comparable salts. This was demonstrated by the reaction of I with e.g., EtCHO or PhCH2COMe to give 63% pyridinium trifluoromethanesulfonate II or 81% PHCH:CMeOSiMe3, resp.

CC 29-6 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 21, 27

IT 84355-13-5P 114643-78-6P ***114643-79-7P 114643-81-1P*** 114643-83-3P
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation); RACT (Reactant or reagent)***
(preparation and silylation by, of carbonyl compds.)

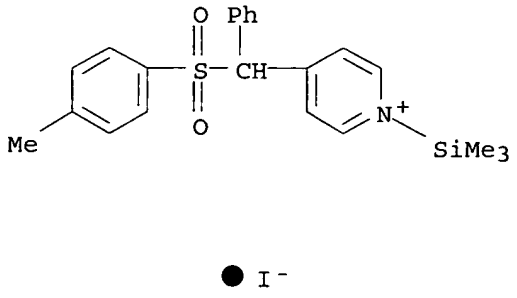
IT 2078-14-0P 17510-46-2P 19980-24-6P 19980-25-7P 19980-43-9P 52193-54-1P 107134-90-7P 114643-85-5P 114643-87-7P ***114643-89-9P*** 114643-91-3P 114643-93-5P 114643-94-6P 114643-95-7P
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)

IT 2116-65-6, 4-Benzylpyridine ***87732-48-7***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(reaction of, with trimethylsilyl iodide, trimethylsilylheteroarylium salt from)

IT ***114643-79-7P 114643-81-1P***
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation); RACT (Reactant or reagent)***
(preparation and silylation by, of carbonyl compds.)

RN 114643-79-7 HCAPLUS

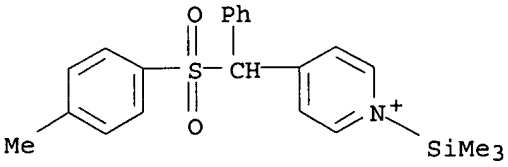
CN Pyridinium, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-1-(trimethylsilyl)-, iodide (9CI) (CA INDEX NAME)



RN 114643-81-1 HCAPLUS
CN Pyridinium, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-1-(trimethylsilyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

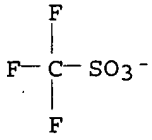
CM 1

CRN 114643-80-0
CMF C22 H26 N O2 S Si



CM 2

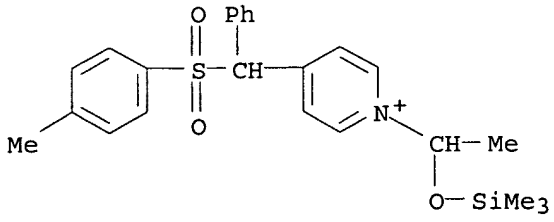
CRN 37181-39-8
CMF C F3 O3 S



IT ***114643-89-9P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
RN 114643-89-9 HCAPLUS
CN Pyridinium, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-1-[1-[(trimethylsilyl)oxy]ethyl]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

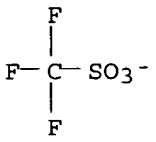
CM 1

CRN 114643-88-8
CMF C24 H30 N O3 S Si

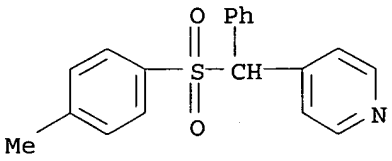


CM 2

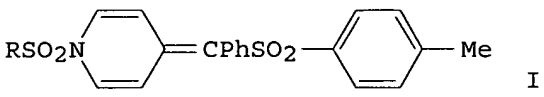
CRN 37181-39-8
CMF C F3 O3 S



IT ***87732-48-7***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(reaction of, with trimethylsilyl iodide, trimethylsilylheteroarylium salt from)
RN 87732-48-7 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:453924 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 103:53924
TITLE: Transfer of trifluoromethanesulfonyl and p-toluenesulfonyl groups to hydroxy group-containing compounds under neutral conditions.
AUTHOR(S): Anders, Ernst; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Synthesis (1984), (12), 1039-41
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 103:53924
GI



I

AB 4-[α-(p-Tolylsulfonyl)benzyl]pyridine was N-sulfonated by (F3CSO2)2O in CHCl3 to give 92% dihydropyridine I (R = F3C) (II). II and I (R = 4-MeC6H4) (III) were used to esterify acid- or base-sensitive alcs. under neutral conditions by transfer of the N-sulfonyl group. Thus, HO(CH2)10OH was stirred at room temperature in CH2Cl2 with II and F3CSO3H to give 91% F3CSO3(CH2)10O3SCF3. II and III reacted with 4-R1C6H4CHO (R1 = Me, MeO) and Ph3P in the presence of F3CSO3H to give 60% (4-R1C6H4CHP+Ph3)2O.2X- (X = F3CSO3, 4-MeC6H4SO3).

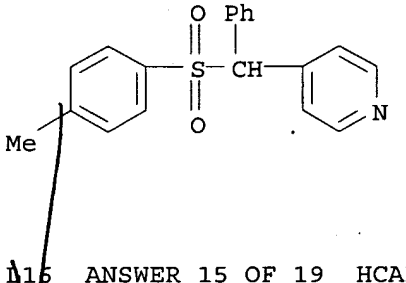
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 23

IT ***87732-48-7***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(N-acylation of, by trifluoromethanesulfonic anhydride)

IT ***87732-48-7***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(N-acylation of, by trifluoromethanesulfonic anhydride)

RN 87732-48-7 HCAPLUS

CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:132163 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 102:132163
TITLE: [1-(Aryl- and alkylcarbonyloxy)alkyl]phosphonium salts. 4. Synthetic methods
AUTHOR(S): Anders, Ernst; Gassner, Thomas; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1985), 118(1), 124-31
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 102:132163

AB Seventeen title salts RCO2CHR1P+R23 X- (I, R = Ph, p-Me-, p-MeOC6H4, Me; R1 = Ph, p-Me-, p-ClC6H4, Me, Et, 1-naphthyl, 2-thienyl; R2 = Bu, Ph; X = Cl, BF4, CF3SO3-) were prepared in 45-90% yields by 4 different methods. Thus, reaction of RCOCl with R1CHO and Bu3P gave I (R = Ph, p-Me-, p-MeOC6H4; R1 = Et, Ph, p-MeC6H4; R2 = Bu; X = Cl).

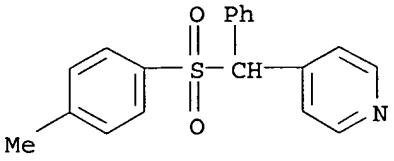
CC 29-7 (Organometallic and Organometalloidal Compounds)

IT ***87732-48-7***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(reaction of, with benzoyl chloride)

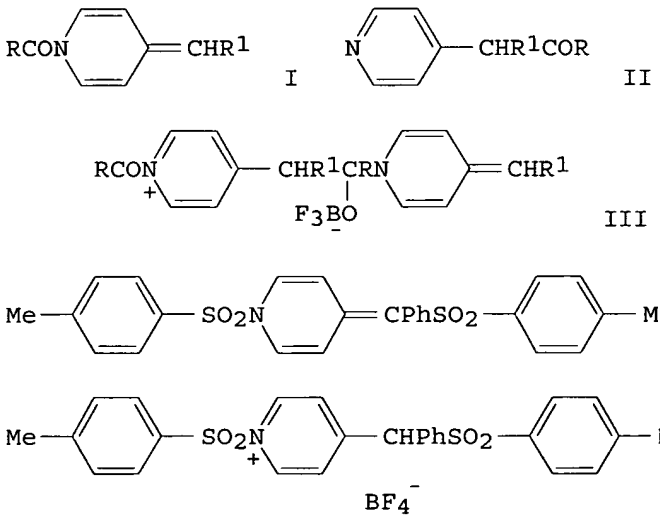
IT ***87732-48-7***
RL: RCT (Reactant); ***RACT (Reactant or reagent)***
(reaction of, with benzoyl chloride)

RN 87732-48-7 HCAPLUS

CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:611905 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 99:211905
TITLE: 1-Acyl-4-alkylidene-1,4-dihydropyridines. 7. Activation with boron trifluoride: Intermolecular acyl group transfer and formation of 1-(4-pyridyl)-2-alkanones
AUTHOR(S): Anders, Ernst; Will, Wolfgang; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1983), 116(9), 3192-204
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 99:211905
GI



AB I [R = Me, (un)substituted phenyl, R1 = Ph, p-tolyl, H] reacted with BF3·OEt2 to give II. The mechanism involved formation of a I·BF3 adduct, which reacted with addnl. I to give intermediate III.

I (R = Ph, R1 = H) and the 1-tosyl-4-benzylidene analog of I were reactive enough that the ketone and sulfone products could be obtained from their isolable precursors without Lewis acid activation. IV was the precursor of V, which was generated in situ and was an extremely effect tosylating agent, even attacking tertiary alcs.

CC 22-6 (Physical Organic Chemistry)

IT ***87732-50-1P***
RL: RCT (Reactant); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(formation and tosylation reactions of)

IT ***87732-51-2P***
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(preparation and deprotonation of)

IT 80-48-8P 640-60-8P 1620-55-9P 4664-57-7P 29335-87-3P 36995-48-9P
67998-52-1P 69856-71-9P 69856-72-0P 69856-73-1P 69856-74-2P
69856-75-3P 75665-42-8P 87732-44-3P 87732-45-4P 87732-46-5P
87732-48-7P
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)

IT ***87732-50-1P***
RL: RCT (Reactant); ***PREP (Preparation)***; ***RACT (Reactant or reagent)***
(formation and tosylation reactions of)

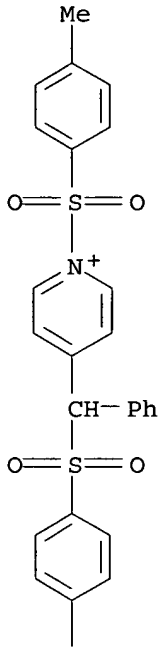
RN 87732-50-1 HCAPLUS

CN Pyridinium, 1-[(4-methylphenyl)sulfonyl]-4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 87732-49-8
CMF C26 H24 N O4 S2

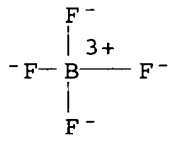
PAGE 1-A



PAGE 2-A

CM 2

CRN 14874-70-5
CMF B F4
CCI CCS

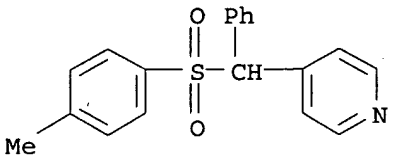


IT ***87732-51-2P***
RL: RCT (Reactant); SPN (Synthetic preparation); ***PREP (Preparation); RACT (Reactant or reagent)***
(preparation and deprotonation of)
RN 87732-51-2 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]-,

tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 87732-48-7
CMF C19 H17 N O2 S



CM 2

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CMF B F4 . H
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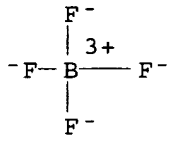
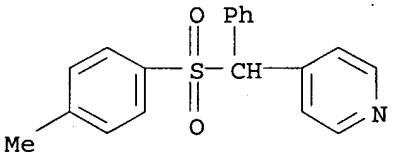
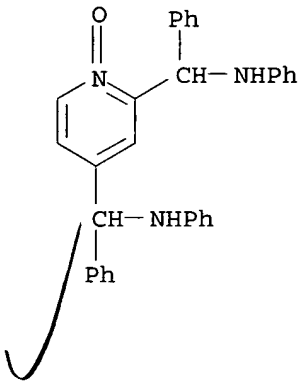


IT ***87732-48-7P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
RN 87732-48-7 HCAPLUS
CN Pyridine, 4-[[(4-methylphenyl)sulfonyl]phenylmethyl]- (9CI) (CA INDEX NAME)



L16 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:563954 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 83:163954

TITLE: Direct thionation and aminoalkylation of pyridine 1-oxides and related reactions
AUTHOR(S): Abramovitch, Rudolph A.; Knaus, Edward E.
CORPORATE SOURCE: Dep. Chem., Univ. Alabama, University, AL, USA
SOURCE: Journal of Heterocyclic Chemistry (1975), 12(4), 683-90
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 83:163954
AB The reaction of lithiopyridine 1-oxides with O gives poor yields of 1-hydroxy-2-pyridones. The reaction with S is a convenient route to the 1-hydroxy-2-pyridinethiones, which have useful antibacterial at 4-1000 μg/ml. and antifungal activity at 8-125 μg/ml. Reaction with ethylene oxide gives mainly polymeric products, but addition to Shiff's bases promises mono-, and di-α-aminoalkylation of pyridine 1-oxides.
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1
IT 1121-30-8P 25363-52-4P 25363-69-3P 25363-70-6P 25363-71-7P
25363-72-8P 25363-74-0P 25363-75-1P 25363-76-2P 25373-68-6P
26196-34-9P 57273-71-9P 57280-57-6P ***57280-58-7P***
57280-59-8P 57280-60-1P 57280-61-2P 57280-62-3P 57323-36-1P
57512-06-8P 57512-07-9P 57607-69-9P
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
IT ***57280-58-7P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)
RN 57280-58-7 HCAPLUS
CN 2,4-Pyridinedimethanamine, N,N',α,α'-tetraphenyl-, 1-oxide (9CI) (CA INDEX NAME)



L16 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:14814 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 80:14814
TITLE: Reaction of 4-substituted pyridines with sulfenyl chlorides
AUTHOR(S): Traynelis, Vincent J.; Rieck, James N.
CORPORATE SOURCE: Dep. Chem., West Virginia Univ., Morgantown, WV, USA
SOURCE: Journal of Organic Chemistry (1973), 38(25), 4334-9
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reaction of 4-alkylpyridines with two substituents on the side-chain

α carbon and arylsulfenyl chlorides gave α,α-disubstituted-4-pyridylmethyl aryl sulfides in 48-95% yield. When trichloromethanesulfenyl chloride and 4-benzhydryl- or 4-isopropylpyridine reacted, diphenyl-4-pyridylmethyl or 2-(4-pyridyl)-2-propyl chloride were formed in 99 and 95% yield, resp., while reaction of these 4-alkylpyridines with sulfur monochloride gave diphenyl-4-pyridylmethyl disulfide (.apprx.66%) or 2-(4-pyridyl)-2-propyl disulfide (82%). Analogous 3-alkyl- and 2-alkylpyridines failed to react with any of the above sulfenyl chlorides. A proposed rationalization of these reaction products entails formation of thiopyridinium ions and follows a pathway similar to the rearrangement of 4-alkylpyridine N-oxides and acid anhydrides.

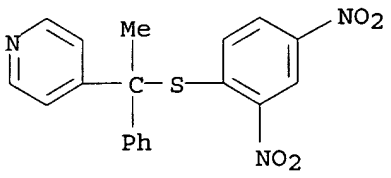
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))

IT 17755-30-5P 19490-94-9P 40473-14-1P 42362-46-9P 42362-47-0P ***42362-48-1P 42362-50-5P 42362-51-6P 42362-52-7P 42362-53-8P*** 42362-54-9P 42362-57-2P 42362-59-4P
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)

IT ***42362-48-1P 42362-50-5P 42362-51-6P 42362-52-7P 42362-53-8P***
RL: SPN (Synthetic preparation); ***PREP (Preparation)***
(preparation of)

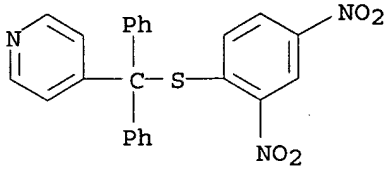
RN 42362-48-1 HCAPLUS

CN Pyridine, 4-[1-[(2,4-dinitrophenyl)thio]-1-phenylethyl]- (9CI) (CA INDEX NAME)



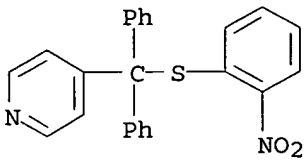
RN 42362-50-5 HCAPLUS

CN Pyridine, 4-[[(2,4-dinitrophenyl)thio]diphenylmethyl]- (9CI) (CA INDEX NAME)

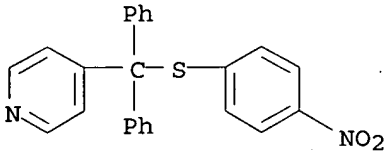


RN 42362-51-6 HCAPLUS

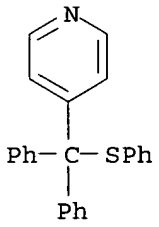
CN Pyridine, 4-[[(2-nitrophenyl)thio]diphenylmethyl]- (9CI) (CA INDEX NAME)



RN 42362-52-7 HCAPLUS
CN Pyridine, 4-[[(4-nitrophenyl)thio]diphenylmethyl]- (9CI) (CA INDEX NAME)



RN 42362-53-8 HCAPLUS
CN Pyridine, 4-[diphenyl(phenylthio)methyl]- (9CI) (CA INDEX NAME)



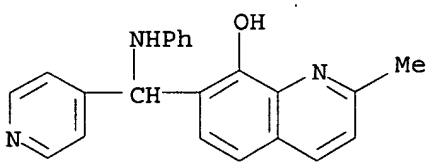
L16 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1964:60789 HCAPLUS <<LOGINID::20070104>>
DOCUMENT NUMBER: 60:60789
ORIGINAL REFERENCE NO.: 60:10646g-h
TITLE: The Betti reaction
AUTHOR(S): Phillips, J. P.; Leach, J. Travis
CORPORATE SOURCE: Univ. of Louisville, Louisville, KY
SOURCE: Trans. Kentucky Acad. Sci. (1964), 24(3-4), 95-100
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB A review of more than 50 published examples of the reaction of 8-quinolinol or 8-hydroxyquinaldine with aromatic amines and aldehydes. 15 references.
CC 37 (Heterocyclic Compounds (One Hetero Atom))
IT 95166-19-1P, 8-Quinolinol, 7-(anilino-2-pyridylmethyl)-2-methyl- ***95166-20-4P***, 8-Quinolinol, 7-(anilino-4-pyridylmethyl)-2-methyl- 95226-32-7P, 8-Quinolinol, 7-[α-(4-chloro-o-toluidino)benzyl]- 95319-86-1P, 8-Quinolinol, 2-methyl-7-[α-[(5-methyl-2-pyridyl)amino]-benzyl]- 95489-55-7P, Benzoic acid, p-[[α-(8-hydroxy-2-methyl-7-quinolyl)benzyl]amino]- 95625-05-1P, 8-Quinolinol, 2-methyl-7-[[(5-methyl-2-pyridyl)amino]-2-pyridylmethyl]- 95937-84-1P, 8-Quinolinol,

2-methyl-7-[α-[(5-methyl-2-pyridyl)amino]-2-thenyl]- 96708-28-0P,
8-Quinolinol, 7-[α-(4-chloro-o-toluidino)benzyl]-2-methyl-
RL: ***PREP (Preparation)***
(preparation of)

IT ***95166-20-4P***, 8-Quinolinol, 7-(anilino-4-pyridylmethyl)-2-methyl-
RL: ***PREP (Preparation)***
(preparation of)

RN 95166-20-4 HCAPLUS

CN 8-Quinolinol, 7-(anilino-4-pyridylmethyl)-2-methyl- (7CI) (CA INDEX NAME)



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FILE 'EMBASE' ENTERED AT 16:03:12 ON 04 JAN 2007

FILE 'BIOSIS' ENTERED AT 16:03:12 ON 04 JAN 2007

FILE 'DRUGU' ENTERED AT 16:03:12 ON 04 JAN 2007

=> d que l18
L6 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L8 232 SEA FILE=REGISTRY SSS FUL L6
L18 1 SEA L8

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YOU HAVE REQUESTED DATA FROM FILE 'CAOLD' - CONTINUE? (Y)/N:y

'ABS' IS NOT A VALID FORMAT FOR FILE 'CAOLD'

The following are valid formats:

ALL ----- AN, TI, AU, PA, DT, IT, PI (default)
BIB ----- AN, TI, AU, PA, DT, PI
CAN ----- List of CA abstract numbers, no L-number headers
CBIB ---- AN, TI, AU, PA, PI
DALL ---- ALL, delimited (end of each field identified)
IND ----- Indexing data
MAX ----- Same as ALL

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SAM ----- TI, IT
SCAN ---- TI, IT (random display, no answer numbers;
          SCAN must be entered on the same line as the DISPLAY,
          e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB

IALL ---- ALL, indented with text labels
IBIB ---- BIB, indented with text labels
ISTD ---- STD, indented with text labels

HIT ----- Fields containing hit terms
HITIND -- IT
HITRN --- HIT RN
HITSTR -- HIT RN, its CA index name and its structure diagram
FHITSTR - First HIT RN, its CA index name and its structure diagram
OCC ----- Number of occurrence of hit term and fie ld in which it occurs

Index Terms (IT) are CAS Registry Numbers; Accession
Numbers (AN) CA References.

Index Terms in CAOLD include only Registry Numbers; no
subject terms are available.  The same formats (except
SAMPLE) may be used with the DISPLAY ACC command to display
the record for a specified CAOLD Accession Number.

PAGE ---- Page Image of original Chemical Abstracts issue containing the
          abstract of the answer.
PAGE.PREV and PAGE.NEXT will return the image of the page before or after
          the current answer.
ENTER DISPLAY FORMAT (ALL):end

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YOU HAVE REQUESTED DATA FROM FILE 'CAOLD' - CONTINUE? (Y)/N:y



L18  ANSWER 1 OF 1  CAOLD  COPYRIGHT 2007 ACS on STN
AN   CA60:10646g  CAOLD
TI   Betti reaction
AU   Phillips, John P.; Leach, J. T.


=> file wpix
FILE 'WPIX' ENTERED AT 16:03:43 ON 04 JAN 2007
COPYRIGHT (C) 2007 THE THOMSON CORPORATION

FILE LAST UPDATED:                          2 JAN 2007   <20070102/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:     200701      <200701/DW>
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PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

'BIX ABEX BIEX TT' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> d que l32
L6 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
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L29 1 SEA FILE=WPIX ABB=ON PLU=ON L28/DCR
L30 1 SEA FILE=WPIX ABB=ON PLU=ON RAGNST/DCN
L31 0 SEA FILE=WPIX ABB=ON PLU=ON 1018507-0-0-0/DCRE
L32 1 SEA FILE=WPIX ABB=ON PLU=ON (L29 OR L30 OR L31)

=> d all abeq tech l32 tot

L32 ANSWER 1 OF 1 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
AN 2005-091480 [10] WPIX <<LOGINID::20070104>>
DNC C2005-030846 [10]
TI New heterocyclic methyl sulfone derivative, its N-oxide, S-oxide, salt or its solvate is useful for treating diseases resulting from abnormality in beta-amyloid protein secretion such as Alzheimer's disease and Down's syndrome
DC B03; B05
IN IIMORI H; KUBOTA H; LIMORI H; MIYAUCHI S; MOTOKI K; SAITO M; YASUKOUCHI T; IIMORI H D P C L; KUBOTA H D P C L; MIYAUCHI S D P C L; MOTOKI K D P C L; SAITO M D P C L; YASUKOUCHI T D P C
PA (DAUC-C) DAIICHI PHARM CO LTD; (IIMO-I) IIMORI H; (KUBO-I) KUBOTA H; (MIYA-I) MIYAUCHI S; (MOTO-I) MOTOKI K; (SAIT-I) SAITO M; (YASU-I) YASUKOUCHI T; (DAUC-C) DAIICHI SEIYAKU CO LTD
CYC 107
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NO 2005005921 A 20060124 (200621) NO
EP 1640366 A1 20060329 (200623) EN
MX 2005013631 A1 20060301 (200649) ES
JP 2005511074 X 20060803 (200651) JA 262
AU 2004251987 A1 20050106 (200654) EN
US 20060241302 A1 20061026 (200671) EN
KR 2006066057 A 20060615 (200674) KO
CN 1812964 A 20060802 (200682) ZH C07C317-00
ADT WO 2005000798 A1 WO 2004-JP9132 20040629; AU 2004251987 A1 AU 2004-251987 20040629; EP 1640366 A1 EP 2004-746601 20040629; EP 1640366 A1 WO 2004-JP9132 20040629; MX 2005013631 A1 WO 2004-JP9132 20040629; JP 2005511074 X WO 2004-JP9132 20040629; US 20060241302 A1 WO 2004-JP9132 20040629; KR 2006066057 A WO 2004-JP9132 20040629; JP 2005511074 X JP 2005-511074 20040629; NO 2005005921 A NO 2005-5921 20051213; MX 2005013631 A1 MX 2005-13631 20051214; US 20060241302 A1 US 2005-561838 20051222; KR 2006066057 A KR 2005-725070 20051227; CN 1812964 A CN 2004-80016999

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JP 2003-187796 20030630
IPCI A61K0031-095 [I,C]; A61K0031-095 [I,C]; A61K0031-10 [I,A]; A61K0031-10 [I,A]; A61K0031-351 [I,A]; A61K0031-351 [I,A]; A61K0031-351 [I,C]; A61K0031-352 [I,A]; A61K0031-352 [I,C]; A61K0031-366 [I,A]; A61K0031-366 [I,A]; A61K0031-366 [I,C]; A61K0031-37 [I,A]; A61K0031-382 [I,A]; A61K0031-382 [I,C]; A61K0031-4164 [I,A]; A61K0031-4164 [I,C]; A61K0031-4174 [I,A]; A61K0031-4184 [I,A]; A61K0031-426 [I,A]; A61K0031-426 [I,C]; A61K0031-44 [I,A]; A61K0031-44 [I,A]; A61K0031-44 [I,C]; A61K0031-4402 [I,A]; A61K0031-4402 [I,C]; A61K0031-4406 [I,A]; A61K0031-4406 [I,C]; A61K0031-4409 [I,A]; A61K0031-4409 [I,C]; A61K0031-4412 [I,A]; A61K0031-4427 [I,C]; A61K0031-443 [I,A]; A61K0031-4433 [I,A]; A61K0031-4436 [I,A]; A61K0031-4439 [I,A]; A61K0031-444 [I,A]; A61K0031-445 [I,A]; A61K0031-4465 [I,A]; A61K0031-4523 [I,C]; A61K0031-4545 [I,A]; A61K0031-455 [I,A]; A61K0031-455 [I,C]; A61K0031-496 [I,A]; A61K0031-496 [I,C]; A61K0031-505 [I,A]; A61K0031-505 [I,C]; A61K0031-506 [I,A]; A61K0031-506 [I,C]; A61K0031-513 [I,A]; A61K0031-5375 [I,C]; A61K0031-5377 [I,A]; A61K0031-541 [I,A]; A61K0031-541 [I,C]; A61P0025-00 [I,C]; A61P0025-00 [I,C]; A61P0025-28 [I,A]; A61P0025-28 [I,A]; A61P0043-00 [I,A]; A61P0043-00 [I,A]; A61P0043-00 [I,C]; C07C0317-00 [I,C]; C07C0317-00 [I,C]; C07C0317-14 [I,A]; C07C0317-14 [I,A]; C07D0211-00 [I,C]; C07D0211-20 [I,A]; C07D0211-24 [I,A]; C07D0211-76 [I,A]; C07D0213-00 [I,C]; C07D0213-02 [I,A]; C07D0213-32 [I,A]; C07D0213-34 [I,A]; C07D0213-36 [I,A]; C07D0213-38 [I,A]; C07D0213-40 [I,A]; C07D0213-42 [I,A]; C07D0213-48 [I,A]; C07D0213-50 [I,A]; C07D0213-53 [I,A]; C07D0213-55 [I,A]; C07D0213-56 [I,A]; C07D0213-57 [I,A]; C07D0213-61 [I,A]; C07D0213-65 [I,A]; C07D0213-70 [I,A]; C07D0213-71 [I,A]; C07D0213-73 [I,A]; C07D0213-74 [I,A]; C07D0213-75 [I,A]; C07D0213-76 [I,A]; C07D0213-77 [I,A]; C07D0213-79 [I,A]; C07D0213-80 [I,A]; C07D0213-81 [I,A]; C07D0213-82 [I,A]; C07D0213-83 [I,A]; C07D0213-86 [I,A]; C07D0213-87 [I,A]; C07D0213-89 [I,A]; C07D0233-00 [I,C]; C07D0233-60 [I,A]; C07D0233-64 [I,A]; C07D0233-68 [I,A]; C07D0235-00 [I,C]; C07D0235-06 [I,A]; C07D0239-00 [I,C]; C07D0239-26 [I,A]; C07D0277-00 [I,C]; C07D0277-26 [I,A]; C07D0309-00 [I,C]; C07D0309-04 [I,A]; C07D0311-00 [I,C]; C07D0311-18 [I,A]; C07D0311-56 [I,A]; C07D0335-00 [I,C]; C07D0335-02 [I,A]; C07D0401-00 [I,C]; C07D0401-02 [I,A]; C07D0401-04 [I,A]; C07D0401-06 [I,A]; C07D0401-12 [I,A]; C07D0403-00 [I,C]; C07D0403-02 [I,A]; C07D0405-00 [I,C]; C07D0405-04 [I,A]; C07D0405-06 [I,A]; C07D0405-12 [I,A]; C07D0409-00 [I,C]; C07D0409-12 [I,A]; C07D0413-00 [I,C]; C07D0413-04 [I,A]; C07D0413-12 [I,A]; C07D0417-00 [I,C]; C07D0417-04 [I,A]; C07D0417-12 [I,A]; C07D0211-00 [I,C]; C07D0211-20 [I,A]; C07D0211-76 [I,A]; C07D0213-00 [I,C]; C07D0213-48 [I,A]; C07D0213-79 [I,A]; C07D0213-81 [I,A]; C07D0213-83 [I,A]; C07D0213-87 [I,A]; C07D0239-00 [I,C]; C07D0239-26 [I,A]
IPCR A61P0025-00 [I,C]; A61P0025-28 [I,A]; A61P0043-00 [I,A]; A61P0043-00 [I,C]; C07C0317-00 [I,C]; C07C0317-14 [I,A]; C07D0213-00 [I,C]; C07D0213-30 [I,A]; C07D0233-00 [I,C]; C07D0233-60 [I,A]; C07D0277-00 [I,C]; C07D0277-26 [I,A]
AB WO 2005000798 A1 UPAB: 20050708
NOVELTY - Heterocyclic methyl sulfone derivative (1), its N-oxide, S-oxide, salt or its solvate is new.
DETAILED DESCRIPTION - The heterocyclic methyl sulfone derivative of formula R3-X-C-(R1)(R2)(R4) (1), its N-oxide, S-oxide, salt or its

solvate is new.
R1, R3 = aromatic heterocyclic ring optionally substituted by aromatic hydrocarbon group or substituent;
R2 = (un)saturated monocyclic heterocyclic ring or unsaturated polycyclic heterocyclic group optionally having a substituent;
R4 = H or 1-6C alkyl;and
X = S, SO or SO2.
INDEPENDENT CLAIMS are also included for the following:
(1) pharmaceutical containing heterocyclic methyl sulfone derivative (1), its N-oxide, S-oxide, salt or its solvate as active ingredient;
(2) use of heterocyclic methyl sulfone derivative (1), its N-oxide, S-oxide, salt or its solvate for producing the pharmaceutical; and
(3) prevention and treatment of diseases resulting from abnormality in beta-amyloid protein secretion, which involves administering heterocyclic methyl sulfone derivative (1), its N-oxide, S-oxide, salt or its solvate.
ACTIVITY - Neuroprotective; Nootropic.
MECHANISM OF ACTION - Amyloid-Protein-Antagonist-Beta.
Amyloid (beta)-protein antagonistic effect of 2-piperidin-1-yl-ethanesulfonic acid (5-chloro-4-((4-chloro-benzenesulfonyl)-(2,5-difluoro-phenyl)-methyl)-pyridin-2-yl)-amide (1a) was evaluated using E35 cell produced from APP751 gene which is a wild-type amyloid protein precursor protein gene introduced to human glioma cell (H9 cell). E35 cell was inoculated to modified Eagle's culture medium containing inactivated 10% fetal bovine serum. Then, (1a) was dissolved in dimethyl sulfoxide was added and cultured for 24 hours. The amount of amyloid (beta)-protein contained in the culture supernatant was estimated by ELISA test. IC50 value of (1a) was found to be 5 nM or less, showing that (1a) had excellent amyloid (beta)-protein antagonistic effect.
USE - In pharmaceutical for preventing and treating diseases resulting from abnormality in beta-amyloid protein secretion, such as Alzheimer's disease and Down's syndrome (claimed).
ADVANTAGE - The heterocyclic methyl sulfone derivative, its N-oxide, S-oxide, salt or its solvate effectively inhibits secretion and production of (beta)-amyloid protein.
MC CPI: B06-H; B07-H; B14-J01A4; B14-L06

=> file babs
FILE 'BABS' ENTERED AT 16:03:57 ON 04 JAN 2007
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FILE LAST UPDATED: 25 SEP 2006 <20060925/UP>
FILE COVERS 1980 TO DATE.

=> d que l22
L22 4 SEA FILE=BABS ABB=ON PLU=ON (6011390/BABSAN OR 5684602/BABSAN OR 6069641/BABSAN OR 6254929/BABSAN)

=> d ibib abs l22 tot

L22 ANSWER 1 OF 4 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN
ACCESSION NUMBER: ***6254929*** BABS <<LOGINID::20070104>>
TITLE: Reduction of N-[$a-(4-Pyridyl)benzylidene]anisidine with NaBH4 in the Presence of NiCl2
AUTHOR(S): Kalashnikov, V. V.; Kalashnikova, I. P.

SOURCE: Russ.J.Org.Chem. (1999), 35(9), 1402 - 1403
CODEN: RJOCEQ
SOURCE: Zh.Org.Khim. (1999), 35(9), 1430 - 1431
CODEN: ZORKAE
DOCUMENT TYPE: Journal
LANGUAGE: English; Russian
AN ***6254929*** BABS <<LOGINID::20070104>>

L22 ANSWER 2 OF 4 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN
ACCESSION NUMBER: ***6069641*** BABS <<LOGINID::20070104>>
TITLE: The rearrangement of N-triarylmethyl anilines to their p-triarylmethyl derivatives
AUTHOR(S): Siskos, Michael G.; Tzerpos, Nikolaos I.; Zarkadis, Antonios K.
SOURCE: Bull.Soc.Chim.Belg. (1996), 105(12), 759-768
CODEN: BSCBAG
DOCUMENT TYPE: Journal
LANGUAGE: English
SUMMARY LANGUAGE: English
AN ***6069641*** BABS <<LOGINID::20070104>>
AB The N-triarylmethyl anilines Ph3C-NHAr (Ar = Ph, o-Me-C6H4, m-Me-C6H4, p-Me-C6H4, p-O2N-C6H4, p-Ph3C-C6H4) and Ar'3C-NHPh <Ar'3C = Ph2(2-Py)C, Ph2(3-Py)C, Ph2(4-Py)C, (p-%t&Bu-C6H4)3C> prepared by the reaction of Ph3C-Cl with anilines ArNH2 and of the corresponding chlorides Ar'3C-Cl with aniline (at 50-100 deg C), undergo a Hoffmann-Martius rearrangement to p-triarylmethyl derivatives (i.e., p-Ar'3C-C6H4-NH2 for Ar = Ph) when they are heated (ca. 185 deg C) with equimolar amounts of PhNH3(1+)Cl(1-).The latter catalyses the rearrangement probably through the formation of the instable anilinium salt Ar'3C-NH2Ar(1+)Cl(1-) that serves as a Ar'3C(1+) ion source.Ar'3C(1+) in a second step (electrophilic aromatic substitution) leads with excess of ArNH2 to p-substituted derivatives (e.g. p-Ar'3C-C6H4-NH2).A free radical mechanism, resonable in view of the high temperatures used (ca. 185 deg C), could be excluded; Ar'3C-NHAr undergoes homolysis of the C-N bond to Ar'3C. radicals at temperatures higher than 200 deg C, a fact which was established using ESR spectroscopy and product analysis.

L22 ANSWER 3 OF 4 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN
ACCESSION NUMBER: ***6011390*** BABS <<LOGINID::20070104>>
TITLE: A Novel Aminoalkyl-decyanation of 4-Pyridinecarbonitrile with Imines: A Facile Selective Synthesis of 4-Pyridinemethanamines
AUTHOR(S): Zeng, Xianmou; Chen, Xiwen; Cai, Jiaqiang; Jiang, Xiaoyun; Gu, Yijian
SOURCE: Tetrahedron Lett. (1996), 37(17), 3009-3010
CODEN: TELEAY
DOCUMENT TYPE: Journal
LANGUAGE: English
SUMMARY LANGUAGE: English
AN ***6011390*** BABS <<LOGINID::20070104>>
AB Reactions of 4-pyridinecarbonitrile with sodium and aromatic imines provide a convenient and useful method for synthesising a new kind of substituted 4-pyridinemethanamines in good yields.

L22 ANSWER 4 OF 4 BABS COPYRIGHT 2007 BEILSTEIN MDL on STN
ACCESSION NUMBER: ***5684602*** BABS <<LOGINID::20070104>>
TITLE: 1-Acyl-4-alkylidene-1,4-dihydropyridines, 7. Activation with Boron Trifluoride: Intermolecular Acyl Group Transfer and Formation of 1-(4-Pyridyl)-2-

alkanones
AUTHOR(S): Anders, Ernst; Will, Wolfgang; Stankowiak, Achim
SOURCE: Chem.Ber. (1983), 116(9), 3192-3204
CODEN: CHBEAM
DOCUMENT TYPE: Journal
LANGUAGE: German
SUMMARY LANGUAGE: English
AN *5684602* BABS <<LOGINID::20070104>>
AB 1-Acyl-4-alkylidene-1,4-dihydropyridines 5, representatives of the thermally stable enamides, can be activated by means of boron trifluoride 6, so the ketones 7 result from attack of 6 on 5 (intermolecular acyl group transfer).The mechanism of this reaction, which has not previously been observed for enamides, is strongly suggested to be as follows: 5 and 6 form first the adduct 21, which attacks 5 with formation of 27.Special examples of 5 (11 and 12) are found to be reactive enough that the ketone 7h or the sulfone 15 can be obtained from their isolable precursors (14 and 13) without Lewis-acid activation. 13 is particularly noteworthy: being the precursor of the salt 16, which is generated in situ, it serves as an extremely effective tosylating agent.Even tertiary alcohols are attackted by 16.

****BELOW ARE THE STRUCTURES THAT BELONG TO THE 4 REFERENCE IN FILE BABS ABOVE.
ONLY ONE STRUCTURE IS PRINTED PER REFERENCE******

=> file beils
FILE 'BEILSTEIN' ENTERED AT 16:04:10 ON 04 JAN 2007

FILE LAST UPDATED ON JUNE 16, 2006

FILE COVERS 1771 TO 2006.
*** FILE CONTAINS 9,606,495 SUBSTANCES ***

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For mo detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

****
* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE *

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* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE          *
* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS.                        *
* FOR PRICE INFORMATION SEE HELP COST                                *
**********************************************************************
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NEW

**** PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.***

**** NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.***

```
=> d que l23

L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L8          232 SEA FILE=REGISTRY SSS FUL L6
L19          28 SEA FILE=BEILSTEIN SSS FUL L6
L20          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L19 NOT L8
L21          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L20 AND BABSAN/FA
L23          10 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L21 AND 6011390/BABSAN


=> d que l24
L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L8          232 SEA FILE=REGISTRY SSS FUL L6
L19          28 SEA FILE=BEILSTEIN SSS FUL L6
L20          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L19 NOT L8
L21          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L20 AND BABSAN/FA
L24           2 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L21 AND 5684602/BABSAN


=> d que l25
L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L8          232 SEA FILE=REGISTRY SSS FUL L6
L19          28 SEA FILE=BEILSTEIN SSS FUL L6
L20          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L19 NOT L8
L21          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L20 AND BABSAN/FA
L25           1 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L21 AND 6069641/BABSAN


=> d que l26
L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L8          232 SEA FILE=REGISTRY SSS FUL L6
L19          28 SEA FILE=BEILSTEIN SSS FUL L6
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L20          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L19 NOT L8
L21          14 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L20 AND BABSAN/FA
L26           1 SEA FILE=BEILSTEIN ABB=ON  PLU=ON  L21 AND 6254929/BABSAN
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=> d ide allref l23 1
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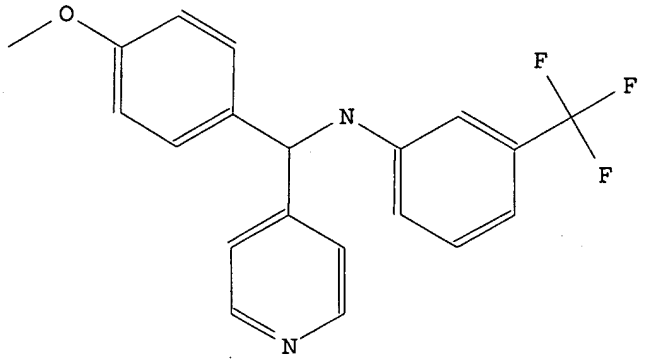
L23 ANSWER 1 OF 10 BEILSTEIN COPYRIGHT 2007 BEILSTEIN MDL on STN

Beilstein Records (BRN):	7492042
Chemical Name (CN):	<(4-methoxy-phenyl)-pyridin-4-yl-methyl>-(3-trifluoromethyl-phenyl)-amine
Autonom Name (AUN):	<(4-methoxy-phenyl)-pyridin-4-yl-methyl>-(3-trifluoromethyl-phenyl)-amine
Molec. Formula (MF):	C20 H17 F3 N2 O
Molecular Weight (MW):	358.36
Lawson Number (LN):	27648, 14143, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6358761
Tautomer ID (TAUTID):	7072239
Beilstein Citation (BSO):	6-22
Entry Date (DED):	1996/11/12
Update Date (DUPD):	1997/08/11



Field Availability:

Code	Name	Occurrence
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CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
DED	Entry Date	1

DUPD	Update Date	1
MP	Melting Point	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:
ALLREF

1. Zeng, Xianmou; Chen, Xiwen; Cai, Jiaqiang; Jiang, Xiaoyun; Gu, Yijian, Tetrahedron Lett., CODEN: TELEAY, 37(17), <1996>, 3009-3010; BABS-6011390

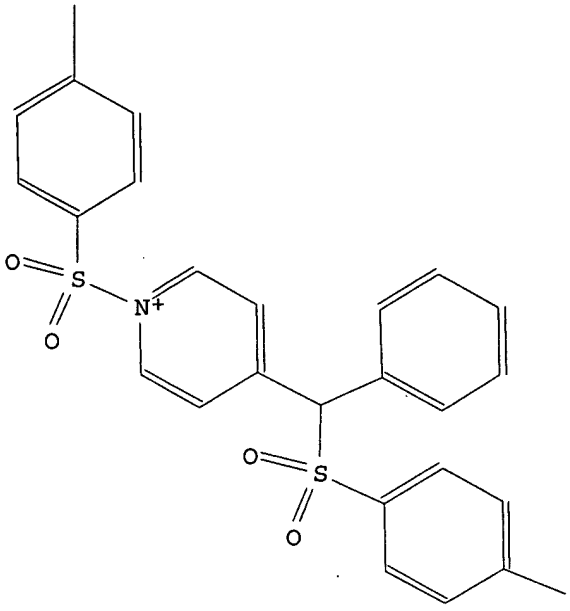
=> d ide allref l24 1

L24 ANSWER 1 OF 2 BEILSTEIN COPYRIGHT 2007 BEILSTEIN MDL on STN

Beilstein Records (BRN):	5712412
Chemical Name (CN):	1-(4-Methylphenylsulfonyl)-4-<(4-methylphenylsulfonyl)phenylmethyl>pyridinium-tetrafluoroborat
Lin. Struct. Formula (LSF):	C26H24NO4S2(1+)*BF4(1-)
Fragm. Molec. Formula (FMF):	C26 H24 N O4 S2 , B F4
Molecular Formula (MF):	C26 H24 N O4 S2 . B F4
Molecular Weight (MW):	478.60, 86.80
Fragment BRN (FBRN):	5660748, 3587364
Lawson Number (LN):	24898, 13813, 5224
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	5059833
Tautomer ID (TAUTID):	5508231
Beilstein Citation (BSO):	6-21
Entry Date (DED):	1993/02/12
Update Date (DUPD):	1993/02/15

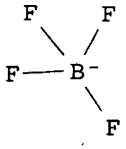
CM 1

FBRN 5660748
FMF C26 H24 N O4 S2



CM 2

FBRN 3587364
FMF B F4



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
LSF	Linearized Structure Formula	1
FMF	Fragment Molecular Formula	2
MF	Molecular Formula	1
FW	Formular Weight	2
FBRN	Fragment BRN	2
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
DED	Entry Date	1
DUPD	Update Date	1

NMR	Nuclear Magnetic Resonance	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

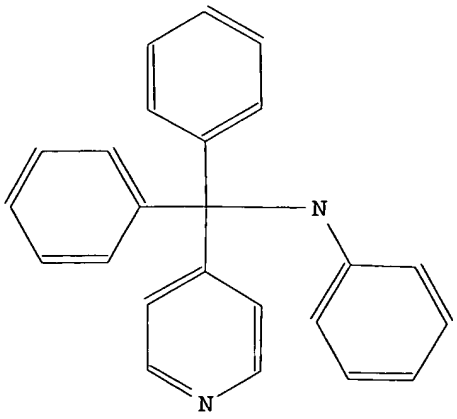
All References:
ALLREF

1. Anders, Ernst; Will, Wolfgang; Stankowiak, Achim, Chem.Ber., CODEN: CHBEAM, 116(9), <1983>, 3192-3204; BABS-5684602

=> d ide allref l25 1

L25 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2007 BEILSTEIN MDL on STN

Beilstein Records (BRN):	7819783
Chemical Name (CN):	(diphenyl-pyridin-4-yl-methyl)-phenyl-amine
Autonom Name (AUN):	(diphenyl-pyridin-4-yl-methyl)-phenyl-amine
Molec. Formula (MF):	C24 H20 N2
Molecular Weight (MW):	336.44
Lawson Number (LN):	27475, 14131
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	6678335
Tautomer ID (TAUTID):	7409575
Beilstein Citation (BSO):	6-22
Entry Date (DED):	1998/04/30
Update Date (DUPD):	1998/05/04



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
DED	Entry Date	1
DUPD	Update Date	1
IR	Infrared Spectrum	1
MP	Melting Point	1
MS	Mass Spectrum	1
NMR	Nuclear Magnetic Resonance	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	3
RXREA	Substance is Reaction Reactant	2
RXPRO	Substance is Reaction Product	1

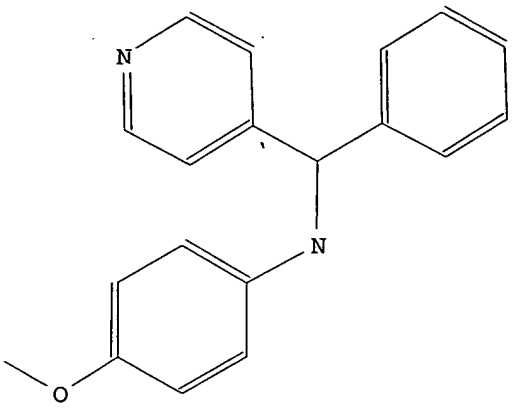
All References:
ALLREF

1. Siskos, Michael G.; Tzerpos, Nikolaos I.; Zarkadis, Antonios K., Bull.Soc.Chim.Belg., CODEN: BSCBAG, 105(12), <1996>, 759-768; BABS-6069641

=> d ide allref l26 1

L26 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2007 BEILSTEIN MDL on STN

Beilstein Records (BRN):	8623892
Chemical Name (CN):	N-<α-(4-Pyridyl)benzyl>anisidine
Autonom Name (AUN):	(4-methoxy-phenyl)-(phenyl-pyridin-4-yl-methyl)-amine
Molec. Formula (MF):	C19 H18 N2 O
Molecular Weight (MW):	290.36
Lawson Number (LN):	27455, 14892, 289
Compound Type (CTYPE):	heterocyclic
Constitution ID (CONSID):	7306161
Tautomer ID (TAUTID):	8143632
Entry Date (DED):	2001/01/30
Update Date (DUPD):	2001/01/30



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
DED	Entry Date	1
DUPD	Update Date	1
MP	Melting Point	1
NMR	Nuclear Magnetic Resonance	2

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:
ALLREF

1. Kalashnikov, V. V.; Kalashnikova, I. P., Russ.J.Org.Chem., CODEN: RJOCEQ, 35(9), <1999>, 1402 - 1403, Zh.Org.Khim., CODEN: ZORKAE, 35(9), <1999>, 1430 - 1431; BABS-6254929

=> file caold
FILE 'CAOLD' ENTERED AT 16:04:42 ON 04 JAN 2007

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

```
=> d que l43
L6              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.
L8          232 SEA FILE=REGISTRY SSS FUL L6
L43           1 SEA FILE=CAOLD ABB=ON  PLU=ON  L8


=> d bib l43 tot

L43  ANSWER 1 OF 1  CAOLD  COPYRIGHT 2007 ACS on STN
AN   CA60:10646g  CAOLD
TI   Betti reaction
AU   Phillips, John P.; Leach, J. T.


=> d his full

     (FILE 'HOME' ENTERED AT 15:26:40 ON 04 JAN 2007)

     FILE 'REGISTRY' ENTERED AT 15:27:42 ON 04 JAN 2007
L1              STRUCTURE UPLOADED
L2            0 SEA SSS SAM L1

     FILE 'STNGUIDE' ENTERED AT 15:27:56 ON 04 JAN 2007

     FILE 'HCAPLUS' ENTERED AT 15:28:00 ON 04 JAN 2007
                E US2004-500156/APPS
L3            1 SEA ABB=ON  PLU=ON  US2004-500156/AP
                D SCAN

     FILE 'STNGUIDE' ENTERED AT 15:28:27 ON 04 JAN 2007

     FILE 'REGISTRY' ENTERED AT 15:34:28 ON 04 JAN 2007
L4              STRUCTURE UPLOADED
                D QUE L4
L5            0 SEA SSS SAM L4

     FILE 'STNGUIDE' ENTERED AT 15:34:48 ON 04 JAN 2007

     FILE 'REGISTRY' ENTERED AT 15:36:23 ON 04 JAN 2007
L6              STRUCTURE UPLOADED
L7           13 SEA SSS SAM L6
```

```
                D QUE L6
L8          232 SEA SSS FUL L6
                SAVE L8 SHIOA156/A TEMP

     FILE 'HCAPLUS' ENTERED AT 15:37:25 ON 04 JAN 2007
                SEL RN L3

     FILE 'REGISTRY' ENTERED AT 15:37:49 ON 04 JAN 2007

     FILE 'HCAPLUS' ENTERED AT 15:38:03 ON 04 JAN 2007
L9           19 SEA ABB=ON  PLU=ON  L8
L10          19 SEA ABB=ON  PLU=ON  (L9 OR L3)
L11          17 SEA ABB=ON  PLU=ON  L8 (L)(PROC OR PREP OR RACT)/RL
L12           4 SEA ABB=ON  PLU=ON  L8 (L)(THU OR PKT OR PAC OR BAC OR DMA)/RL

                E ALZHEIMER/CT
                E E9+ALL
L13       24506 SEA ABB=ON  PLU=ON  "ALZHEIMER'S DISEASE"+OLD/CT
L14       42816 SEA ABB=ON  PLU=ON  ALZHEIMER?
                E ALZHEIMER/CT
                E E6+ALL
L15           2 SEA ABB=ON  PLU=ON  L9 AND (L13 OR L14)
L*** DEL  42833 S L9-L15
L16          19 SEA ABB=ON  PLU=ON  (L9 OR L10 OR L11 OR L12 OR L15)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAOLD, DRUGU, WPIX' ENTERED AT 15:41:01 ON
     04 JAN 2007
L17           1 SEA ABB=ON  PLU=ON  L8

     FILE 'MEDLINE, EMBASE, BIOSIS, CAOLD, DRUGU' ENTERED AT 15:41:16 ON 04
     JAN 2007
L18           1 SEA ABB=ON  PLU=ON  L8

     FILE 'BEILSTEIN' ENTERED AT 15:41:36 ON 04 JAN 2007
L19          28 SEA SSS FUL L6
L20          14 SEA ABB=ON  PLU=ON  L19 NOT L8
L21          14 SEA ABB=ON  PLU=ON  L20 AND BABSAN/FA
                SEL BABSAN L21

     FILE 'BABS' ENTERED AT 15:42:13 ON 04 JAN 2007
L22           4 SEA ABB=ON  PLU=ON  (6011390/BABSAN OR 5684602/BABSAN OR
                6069641/BABSAN OR 6254929/BABSAN)

     FILE 'BEILSTEIN' ENTERED AT 15:42:51 ON 04 JAN 2007
L23          10 SEA ABB=ON  PLU=ON  L21 AND 6011390/BABSAN
L24           2 SEA ABB=ON  PLU=ON  L21 AND 5684602/BABSAN
L25           1 SEA ABB=ON  PLU=ON  L21 AND 6069641/BABSAN
L26           1 SEA ABB=ON  PLU=ON  L21 AND 6254929/BABSAN

     FILE 'MARPAT' ENTERED AT 15:43:48 ON 04 JAN 2007
L27          15 SEA SSS SAM L6

     FILE 'WPIX' ENTERED AT 15:44:06 ON 04 JAN 2007
L28           1 SEA SSS FUL L6
L29           1 SEA ABB=ON  PLU=ON  L28/DCR
                SEL SDCN L28
                EDIT E5 SDCN DCN
L30           1 SEA ABB=ON  PLU=ON  RAGNST/DCN
                SEL DCSE L28
```

```
                EDIT E6 DCSE DCRE
L31             0 SEA ABB=ON  PLU=ON  1018507-0-0-0/DCRE
L32             1 SEA ABB=ON  PLU=ON  (L29 OR L30 OR L31)

     FILE 'WPIX' ENTERED AT 15:45:59 ON 04 JAN 2007

     FILE 'HCAPLUS' ENTERED AT 15:46:02 ON 04 JAN 2007
                E YASUKOUCHI T/AU
L33            15 SEA ABB=ON  PLU=ON  ("YASUKOUCHI T"/AU OR "YASUKOUCHI TAKANORI"
                   /AU)
                E ITO M/AU
L34          1365 SEA ABB=ON  PLU=ON  ("ITO M"/AU OR "ITO M B"/AU OR "ITO M
                   F"/AU OR "ITO M M"/AU OR "ITO MASAYUKI"/AU)
                E KUBOTA H/AU
L35           285 SEA ABB=ON  PLU=ON  ("KUBOTA H"/AU OR "KUBOTA H G"/AU OR
                   "KUBOTA H Y"/AU OR "KUBOTA HIDEKI"/AU)
                E MIYAUCHI S/AU
L36            52 SEA ABB=ON  PLU=ON  ("MIYAUCHI S"/AU OR "MIYAUCHI SATORU"/AU)
                E SAITO M/AU
L37          1040 SEA ABB=ON  PLU=ON  ("SAITO M"/AU OR "SAITO M A"/AU OR "SAITO
                   M AKOTO"/AU OR "SAITO M E"/AU OR "SAITO M GIITI"/AU OR "SAITO
                   M H"/AU OR "SAITO M I"/AU OR "SAITO M L"/AU OR "SAITO M T"/AU
                   OR "SAITO MASANORI"/AU)
L38             0 SEA ABB=ON  PLU=ON  L33 AND L34 AND L35 AND L36 AND L37
L39            11 SEA ABB=ON  PLU=ON  (L33 AND (L34 OR L35 OR L36 OR L37)) OR
                   (L34 AND (L35 OR L36 OR L37)) OR (L35 AND (L36 OR L37)) OR
                   (L36 AND L37)
L40            11 SEA ABB=ON  PLU=ON  (L39 OR L3)
L41             5 SEA ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR L37) AND
                   (BETA(2A)AMYLOID?)
L42            13 SEA ABB=ON  PLU=ON  (L39 OR L40 OR L41)

     FILE 'CAOLD' ENTERED AT 15:50:38 ON 04 JAN 2007
L43             1 SEA ABB=ON  PLU=ON  L8

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, DRUGU, WPIX' ENTERED AT 15:51:01
     ON 04 JAN 2007
L44           169 SEA ABB=ON  PLU=ON  YASUKOUCHI T?/AU
L45         43708 SEA ABB=ON  PLU=ON  ITO M?/AU
L46          7285 SEA ABB=ON  PLU=ON  KUBOTA H?/AU
L47          1944 SEA ABB=ON  PLU=ON  MIYAUCHI S?/AU
L48         33397 SEA ABB=ON  PLU=ON  SAITO M?/AU
L49             1 SEA ABB=ON  PLU=ON  L44 AND L45 AND L46 AND L47 AND L48
L50           178 SEA ABB=ON  PLU=ON  (L44 AND (L45 OR L46 OR L47 OR L48)) OR
                   (L45 AND (L46 OR L47 OR L48)) OR (L46 AND (L47 OR L48)) OR
                   (L47 AND L48)
L51            98 DUP REM L50 (80 DUPLICATES REMOVED)
                        ANSWERS '1-46' FROM FILE HCAPLUS
                        ANSWERS '47-50' FROM FILE MEDLINE
                        ANSWERS '51-53' FROM FILE EMBASE
                        ANSWERS '54-70' FROM FILE BIOSIS
                        ANSWERS '71-98' FROM FILE WPIX
L52             3 SEA ABB=ON  PLU=ON  L51 AND (BETA(2A) AMYLOID?)
L53            52 SEA ABB=ON  PLU=ON  (L44 OR L45 OR L46 OR L47 OR L48) AND
                   (BETA(2A) AMYLOID?)
L54            23 DUP REM L53 (29 DUPLICATES REMOVED)
                        ANSWERS '1-12' FROM FILE HCAPLUS
                        ANSWERS '13-15' FROM FILE MEDLINE
                        ANSWERS '16-18' FROM FILE EMBASE
```

```
                    ANSWERS '19-23' FROM FILE BIOSIS
L55          24 SEA ABB=ON  PLU=ON  (L49 OR L52 OR L54)

     FILE 'STNGUIDE' ENTERED AT 15:53:58 ON 04 JAN 2007
               D QUE L42

     FILE 'HCAPLUS' ENTERED AT 16:01:37 ON 04 JAN 2007
L56          11 SEA ABB=ON  PLU=ON  L42 NOT L16

     FILE 'STNGUIDE' ENTERED AT 16:01:59 ON 04 JAN 2007
               D QUE L55
               D QUE L56

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 16:02:07 ON 04
     JAN 2007
L57          31 DUP REM L55 L56 (4 DUPLICATES REMOVED)
                    ANSWERS '1-20' FROM FILE HCAPLUS
                    ANSWERS '21-23' FROM FILE MEDLINE
                    ANSWERS '24-26' FROM FILE EMBASE
                    ANSWERS '27-31' FROM FILE BIOSIS
               D IBIB ABS RETABLE L57 1-20
               D IBIB ABS L57 21-31

     FILE 'HCAPLUS' ENTERED AT 16:02:36 ON 04 JAN 2007
               D QUE L16
               D IBIB ABS HITIND HITSTR RETABLE L16 TOT

     FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU' ENTERED AT 16:03:12 ON 04 JAN 2007
               D QUE L18

     FILE 'CAOLD' ENTERED AT 16:03:21 ON 04 JAN 2007

     FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU' ENTERED AT 16:03:25 ON 04 JAN 2007

     FILE 'CAOLD' ENTERED AT 16:03:37 ON 04 JAN 2007
               D BIB L18 TOT

     FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU' ENTERED AT 16:03:37 ON 04 JAN 2007

     FILE 'WPIX' ENTERED AT 16:03:43 ON 04 JAN 2007
               D QUE L32
               D ALL ABEQ TECH L32 TOT

     FILE 'BABS' ENTERED AT 16:03:57 ON 04 JAN 2007
               D QUE L22
               D IBIB ABS L22 TOT

     FILE 'BEILSTEIN' ENTERED AT 16:04:10 ON 04 JAN 2007
               D QUE L23
               D QUE L24
               D QUE L25
               D QUE L26
               D IDE ALLREF L23 1
               D IDE ALLREF L24 1
               D IDE ALLREF L25 1
               D IDE ALLREF L26 1

     FILE 'CAOLD' ENTERED AT 16:04:42 ON 04 JAN 2007
               D QUE L43
```

D BIB L43 TOT

FILE HOME

FILE REGISTRY
Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 3 JAN 2007 HIGHEST RN 916687-76-8
DICTIONARY FILE UPDATES: 3 JAN 2007 HIGHEST RN 916687-76-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 2, 2007 (20070102/UP).

FILE HCAPLUS

FILE COVERS 1907 - 4 Jan 2007 VOL 146 ISS 2
FILE LAST UPDATED: 3 Jan 2007 (20070103/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE MEDLINE
FILE LAST UPDATED: 3 Jan 2007 (20070103/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE
FILE COVERS 1974 TO 4 Jan 2007 (20070104/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 3 January 2007 (20070103/ED)

FILE CAOLD
FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

FILE DRUGU
FILE LAST UPDATED: 4 JAN 2007 <20070104/UP>
>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<
>>> THESAURUS AVAILABLE IN /CT <<<

FILE WPIX
FILE LAST UPDATED: 2 JAN 2007 <20070102/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200701 <200701/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://scientific.thomson.com/support/patents/coverage/latestupdates/

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX
PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

FILE BEILSTEIN
FILE LAST UPDATED ON JUNE 16, 2006

FILE COVERS 1771 TO 2006.
FILE CONTAINS 9,606,495 SUBSTANCES

>>>PLEASE NOTE: Reaction Data and substance data are stored in
separate documents and can not be searched together in one query.
Reaction data for BEILSTEIN compounds may be displayed
immediately with the display codes PRE (preparations) and REA
(reactions). A substance answer set retrieved after the search
for a chemical name, a compounds with available reaction
information by combining with PRE/FA, REA/FA or more generally
with RX/FA. The BEILSTEIN Registry Number (BRN) is the link
between a BEILSTEIN compound and belonging reactions. For mo
detailed reaction searches BRNs can be searched as reaction
partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

****
* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE *
* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE *
* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. *
* FOR PRICE INFORMATION SEE HELP COST *
****

NEW
* ***PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.***
* ***NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.***

FILE BABS
FILE LAST UPDATED: 25 SEP 2006 <20060925/UP>
FILE COVERS 1980 TO DATE.

FILE MARPAT
FILE CONTENT: 1961-PRESENT VOL 146 ISS 1 (20061229/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

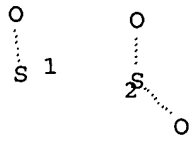
US 7138540 21 NOV 2006
DE 102005018025 02 NOV 2006

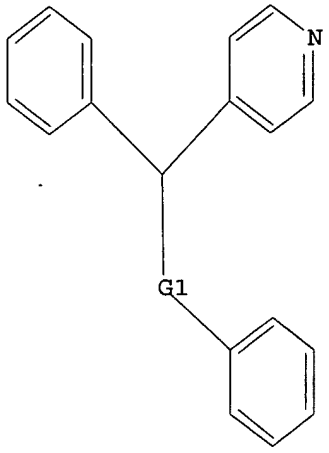
EP	1721898	15 NOV 2006
JP	2006310097	09 NOV 2006
WO	2006126581	30 NOV 2006
GB	2425654	01 NOV 2006
FR	2885527	17 NOV 2006
RU	2287007	10 NOV 2006
CA	2546348	11 NOV 2006

Expanded G-group definition display now available.

**********THESE ARE CASREACT RESUTLS**********

=> d que l59
L6 STR





G1 S,N,[@1],[@2]

Structure attributes must be viewed using STN Express query preparation.
L59 7 SEA FILE=CASREACT SSS FUL L6 (31 REACTIONS)

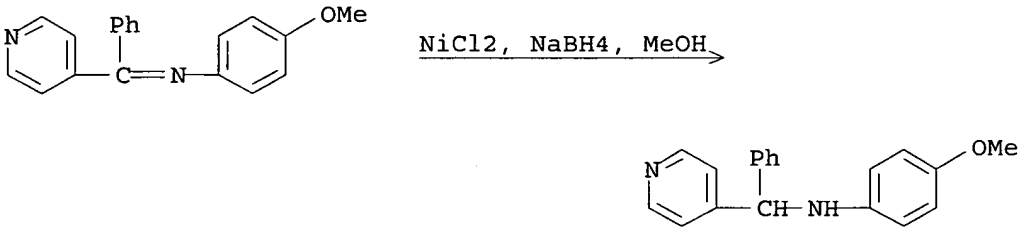
=> d ibib abs crd l59 tot

L59 ANSWER 1 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 132:347470 CASREACT <<LOGINID::20070104>>
TITLE: Reduction of N-[α-(4-pyridyl)benzylidene]anisidine with NaBH4 in the presence of NiCl2
AUTHOR(S): Kalashnikov, V. V.; Kalashnikova, I. P.
CORPORATE SOURCE: Institute of Physiologically Active Substances, Russian Academy of Sciences, Chernogolovka, 142432, Russia
SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (1999), 35(9), 1402-1403

CODEN: RJOCEQ; ISSN: 1070-4280
PUBLISHER: MAIK Nauka/Interperiodica Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The preparation and nickel chloride-mediated borohydride reduction of 4-methoxy-N-[phenyl(4-pyridinyl)methylene]benzenamine (Schiff base) to N-(4-methoxyphenyl)-α-phenyl-4-pyridinemethanamine dihydrochloride were reported. In the absence of nickel chloride no reaction occurred.

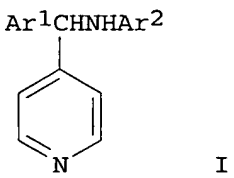
RX(1) OF 1



2 HCl
91%

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

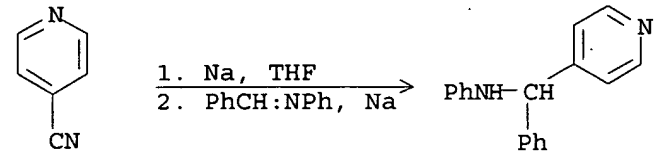
L59 ANSWER 2 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 125:58283 CASREACT <<LOGINID::20070104>>
TITLE: A novel aminoalkylation-decyanation of 4-pyridinecarbonitrile with imines: a facile selective synthesis of 4-pyridinemethanamines
AUTHOR(S): Zeng, Xianmou; Chen, Xiwen; Cai, Jiaqiang; Jiang, Xiaoyun; Gu, Yijian
CORPORATE SOURCE: Dalian Inst. Chem. Phys., Academia Sinica, Dalian, 116012, Peop. Rep. China
SOURCE: Tetrahedron Letters (1996), 37(17), 3009-10
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

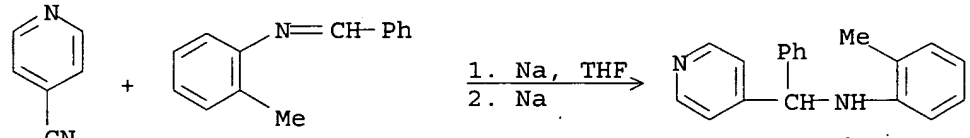
AB Reactions of 4-pyridinecarbonitrile with sodium and aromatic imines Ar1CH:NAr2 (Ar1 = Ph, Ar2 = Ph, 2-MeC6H4, 2-, 3-, 4-EtC6H4, 3-ClC6H4, 3-F3CC6H4, 4-EtOC6H4; Ar1 = 4-MeOC6H4, Ar2 = Ph, 3-F3CC6H4) provide a convenient and useful method for synthesizing 4-pyridinemethanamines I in good yields.

RX(1) OF 7



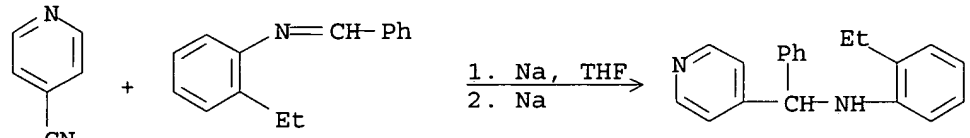
(step 1) 85%

RX(2) OF 7



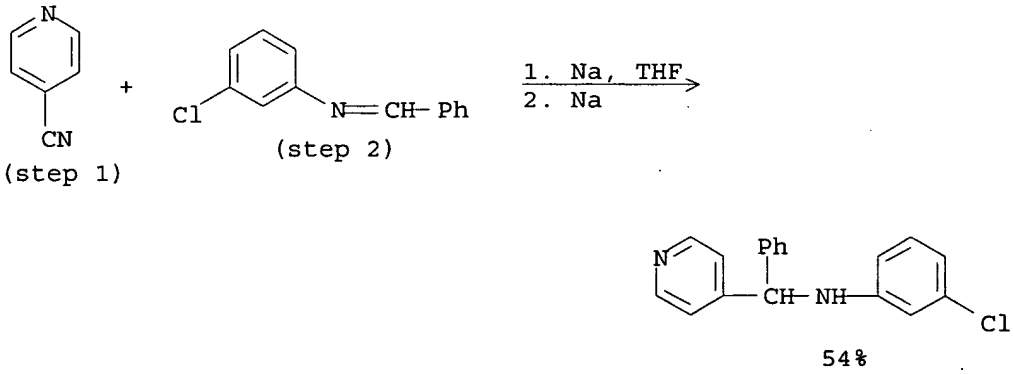
(step 1) (step 2) 87%

RX(3) OF 7



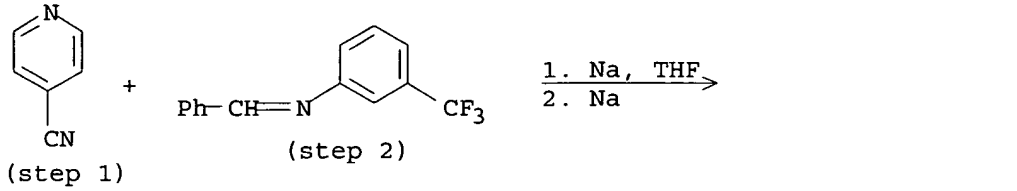
(step 1) (step 2) 61%

RX(4) OF 7



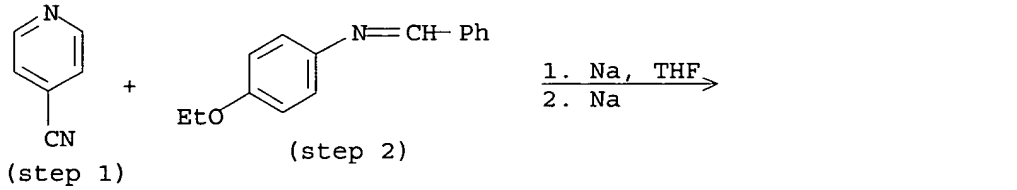
(step 1) (step 2) 54%

RX(5) OF 7



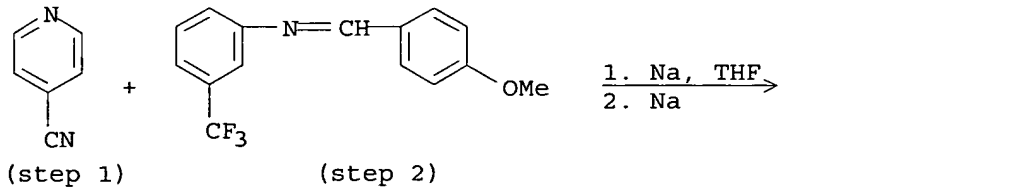
80%

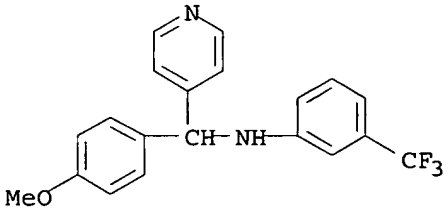
RX(6) OF 7



57%

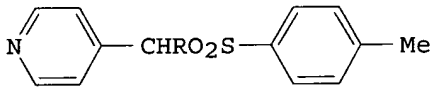
RX(7) OF 7



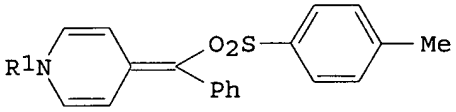


72%

L59 ANSWER 3 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 110:74541 CASREACT <<LOGINID::20070104>>
TITLE: Remote controlled nucleophilicity of anions of some 4-alkylpyridines: AM1- and MNDO-calculations, experimental tests
AUTHOR(S): Anders, Ernst; Korn, Uwe; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1989), 122(1), 105-11
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



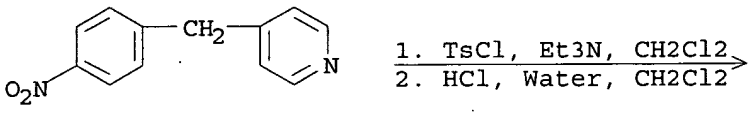
I



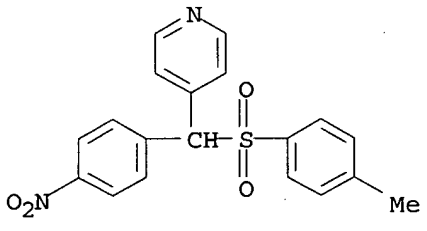
II

AB Pyridine derivs. I (R = Ph, C6H4NO2-4, tosyl) were converted to Na salts with NaN(SiMe3)2, and the salts reacted with electrophiles to give dihydropyridines, e.g., II (R1 = cinnamoyl, Me3Si). Explanations of this behavior were provided by MO calcns. on model compds.

RX(1) OF 10

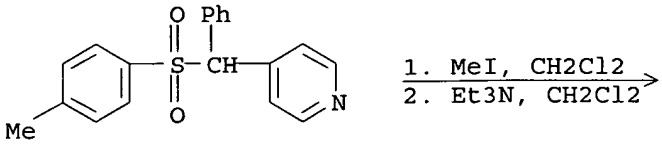


(step 1)



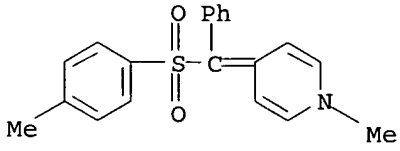
79%

RX(3) OF 10



(step 1)

1. MeI, CH2Cl2
2. Et3N, CH2Cl2



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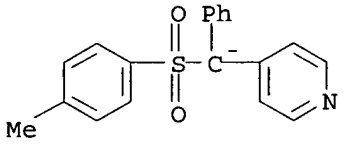
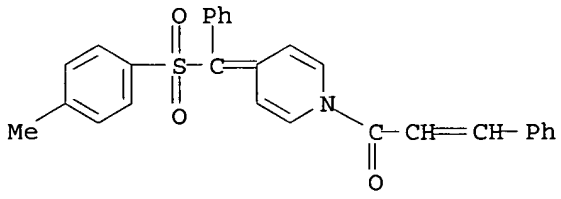
RX(4) OF 10 - REACTION DIAGRAM NOT AVAILABLE

RX(5) OF 10



Na^+

PhCH:CHCOCl, THF



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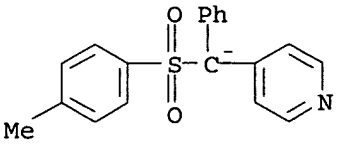
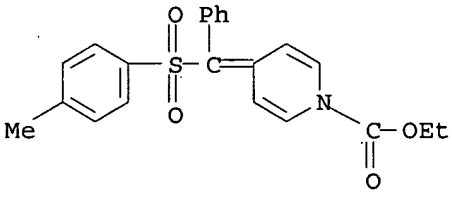
RX(6) OF 10

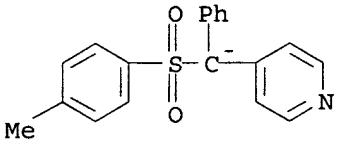


ClCO2Et, THF

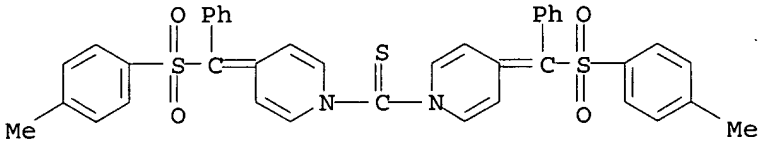


76%

RX(7) OF 10

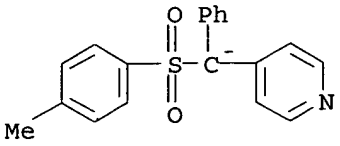


C(S)Cl2, THF



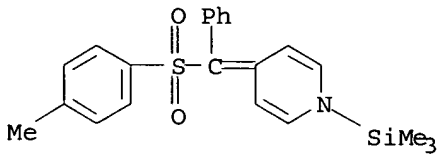
49%

RX(8) OF 10



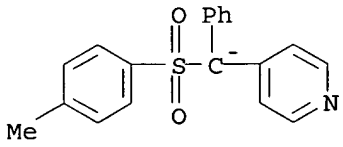
Me3SiCl, THF →

Na^+

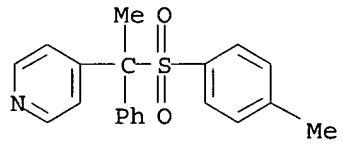


99%

RX(9) OF 10



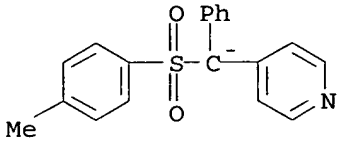
MeI, THF →



65%

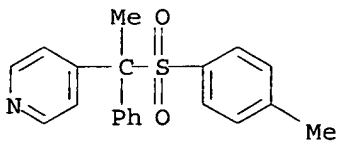
Na^+

RX(10) OF 10



CF3SO3Me, THF →

Na^+



84%

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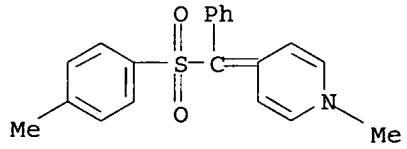
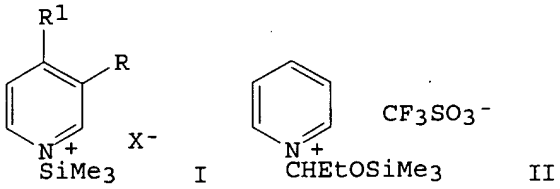


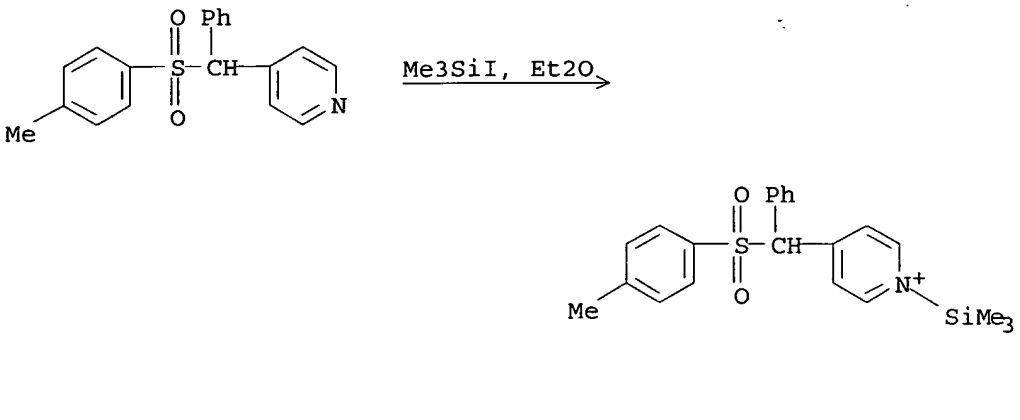
84%

L59 ANSWER 4 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 108:221768 CASREACT <<LOGINID::20070104>>
TITLE: Syntheses with N-trimethylsilylheteroarylium salts. Reactions with aldehydes, ketones, and carboxylic acids. Comparison of reactivity with analogous N-acylheteroarylium salts
AUTHOR(S): Anders, Ernst; Stankowiak, Achim; Riemer, Roland
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Synthesis (1987), (10), 931-4
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



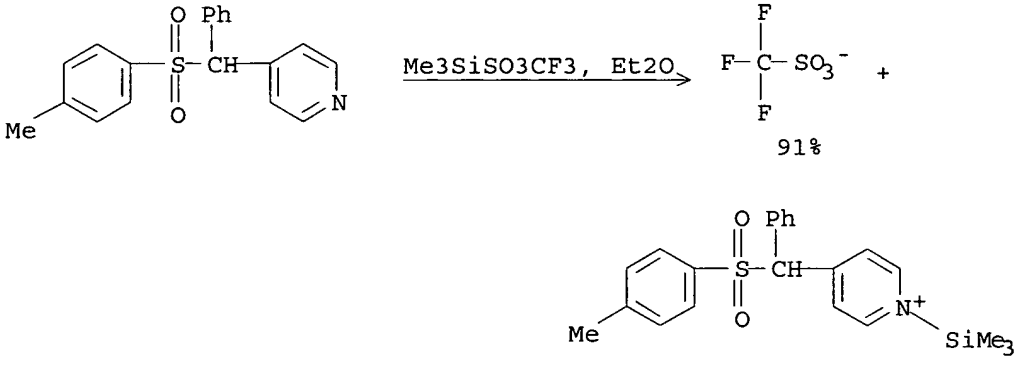
AB The title salts I (R = R1 = H, X = CF3SO3; R = H, R1 = 4-C6H4CH2, 4-MeC6H4SO2CHPh, X = iodo; R = H, R1 = 4-MeC6H4SO2CHPh, X = CF3SO3; RR1 = CH:CHCH:CH, X = CF3SO3) were prepared in 84-99% yields by the reaction of corresponding pyridines with Me3SiO3SCF3 or Me3SiI. I were efficient silylating reagent for carbonyl compds. and carboxylic acids. The reactivity of I is comparable to that of N-acylheteroarylium salts. In some cases (depending on the nature of the substrates), the silylating power of I can be stronger than the acylating power of comparable salts. This was demonstrated by the reaction of I with e.g., EtCHO or PhCH2COMe to give 63% pyridinium trifluoromethanesulfonate II or 81% PHCH:CMeOSiMe3, resp.

RX(3) OF 27



99%

RX(4) OF 27



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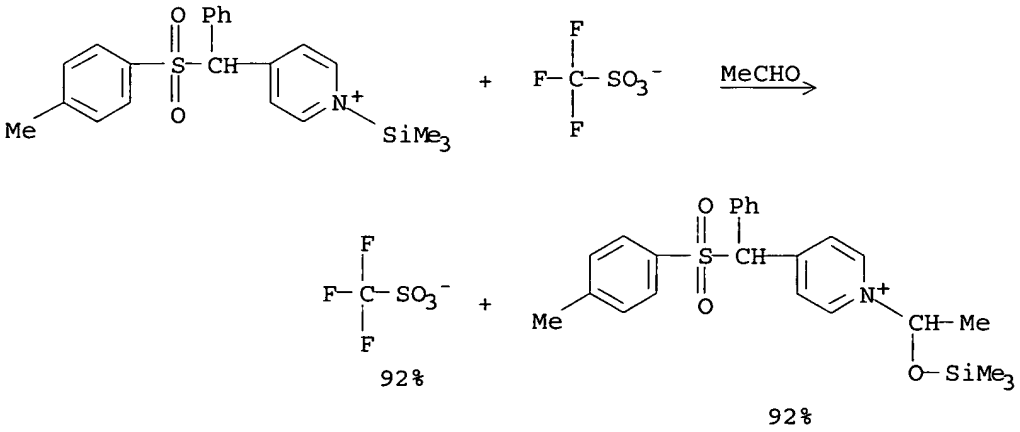
91%

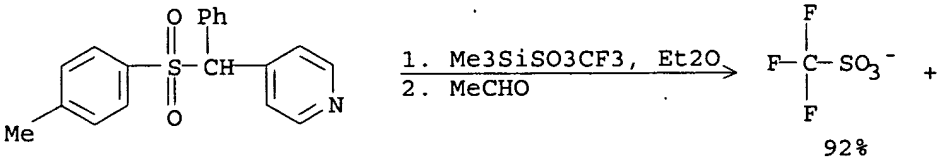
RX(8) OF 27

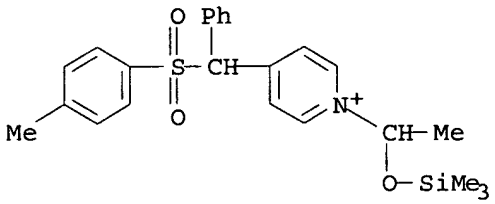


92%

92%

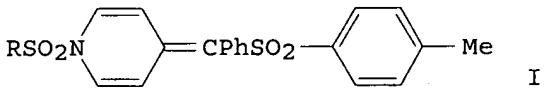
RX(25) OF 27 - 2 STEPS





92%

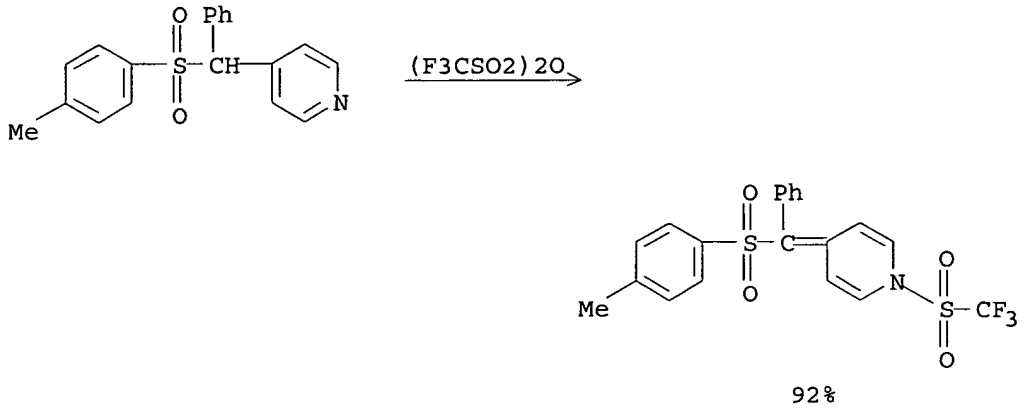
L59 ANSWER 5 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 103:53924 CASREACT <<LOGINID::20070104>>
TITLE: Transfer of trifluoromethanesulfonyl and p-toluenesulfonyl groups to hydroxy group-containing compounds under neutral conditions.
AUTHOR(S): Anders, Ernst; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Synthesis (1984), (12), 1039-41
CODEN: SYNTBF; ISSN: 0039-7881
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



I

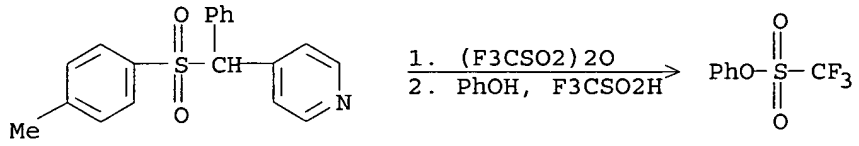
AB 4-[α-(p-Tolylsulfonyl)benzyl]pyridine was N-sulfonated by (F3CSO2)2O in CHCl3 to give 92% dihydropyridine I (R = F3C) (II). II and I (R = 4-MeC6H4) (III) were used to esterify acid- or base-sensitive alcs. under neutral conditions by transfer of the N-sulfonyl group. Thus, HO(CH2)10OH was stirred at room temperature in CH2Cl2 with II and F3CSO3H to give 91% F3CSO3(CH2)10O3SCF3. II and III reacted with 4-R1C6H4CHO (R1 = Me, MeO) and Ph3P in the presence of F3CSO3H to give 60% (4-R1C6H4CHP+Ph3)2O.2X- (X = F3CSO3, 4-MeC6H4SO3).

RX(2) OF 7

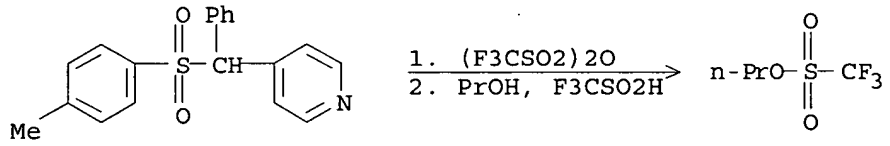


92%

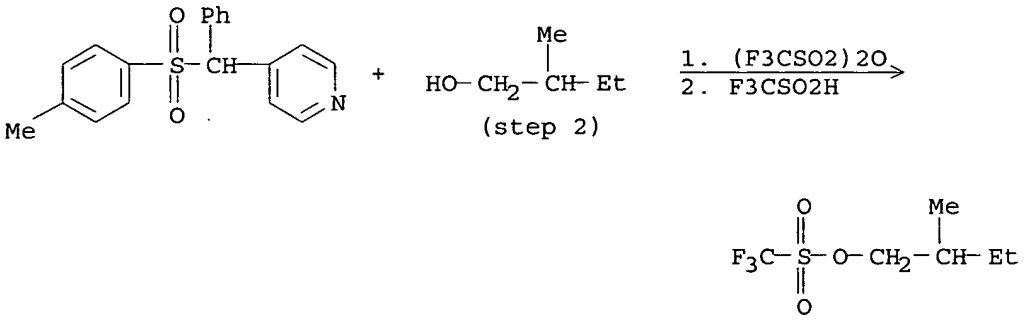
RX(5) OF 7 - 2 STEPS



RX(6) OF 7 - 2 STEPS



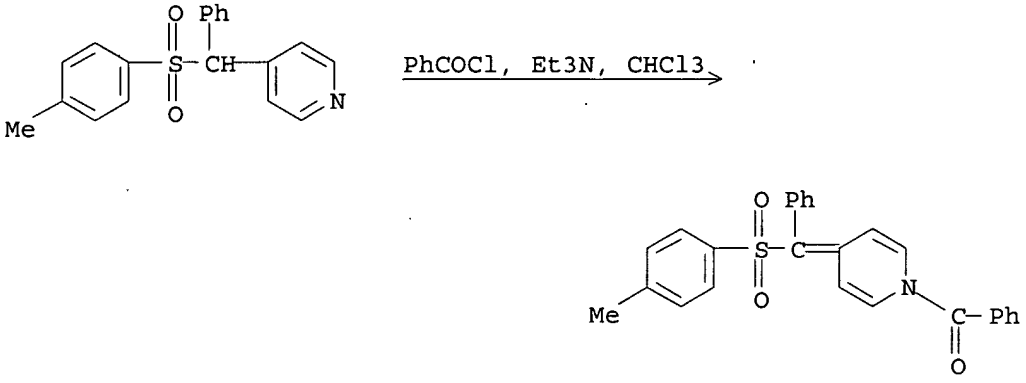
RX(7) OF 7 - 2 STEPS



L59 ANSWER 6 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 102:132163 CASREACT <<LOGINID::20070104>>
TITLE: [1-(Aryl- and alkylcarbonyloxy)alkyl]phosphonium salts. 4. Synthetic methods

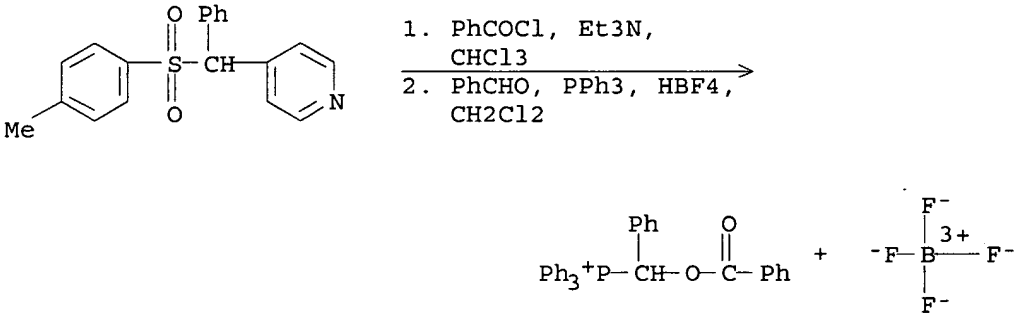
AUTHOR(S): Anders, Ernst; Gassner, Thomas; Stankowiak, Achim
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1985), 118(1), 124-31
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Seventeen title salts RCO2CHR1P+R23 X- (I, R = Ph, p-Me-, p-MeOC6H4, Me; R1 = Ph, p-Me-, p-ClC6H4, Me, Et, 1-naphthyl, 2-thienyl; R2 = Bu, Ph; X = Cl, BF4, CF3SO3-) were prepared in 45-90% yields by 4 different methods. Thus, reaction of RCOCl with R1CHO and Bu3P gave I (R = Ph, p-Me-, p-MeOC6H4; R1 = Et, Ph, p-MeC6H4; R2 = Bu; X = Cl).

RX(21) OF 28

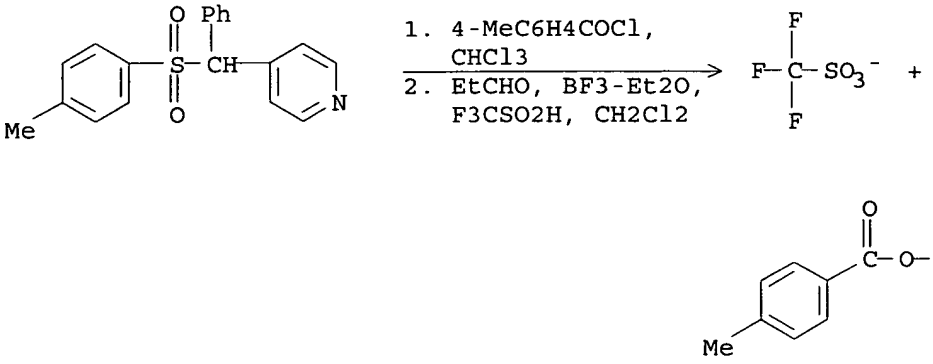


RX(22) OF 28 - REACTION DIAGRAM NOT AVAILABLE

RX(27) OF 28 - 2 STEPS



RX(28) OF 28 - 2 STEPS



L59 ANSWER 7 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 99:211905 CASREACT <<LOGINID::20070104>>

TITLE: 1-Acyl-4-alkylidene-1,4-dihydropyridines. 7. Activation with boron trifluoride: Intermolecular acyl group transfer and formation of 1-(4-pyridyl)-2-alkanones

AUTHOR(S): Anders, Ernst; Will, Wolfgang; Stankowiak, Achim

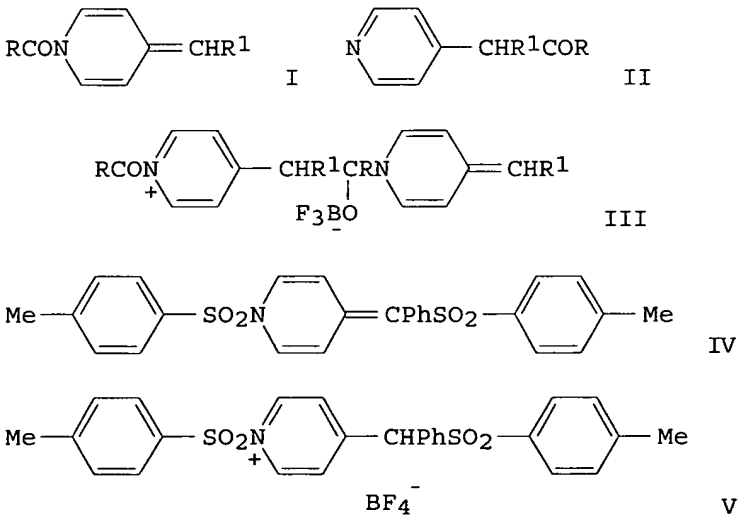
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1983), 116(9), 3192-204
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

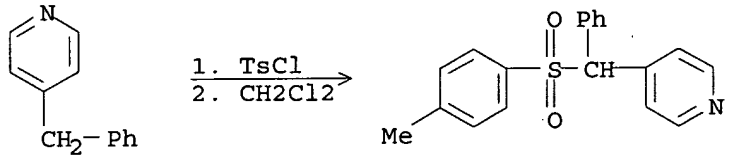
GI



AB I [R = Me, (un)substituted phenyl, R1 = Ph, p-tolyl, H] reacted with $BF_3 \cdot OEt_2$ to give II. The mechanism involved formation of a $I \cdot BF_3$ adduct, which reacted with addnl. I to give intermediate III. I (R = Ph, R1 = H) and the 1-tosyl-4-benzylidene analog of I were reactive enough that the ketone and sulfone products could be obtained from their isolable precursors without Lewis acid activation. IV was the precursor of V, which was generated in situ and was an extremely effect tosylating agent, even attacking tertiary alcs.

RX(15) OF 16 - REACTION DIAGRAM NOT AVAILABLE

RX(16) OF 16 - 2 STEPS



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FILE 'REGISTRY' ENTERED AT 15:27:42 ON 04 JAN 2007
L1 STRUCTURE UPLOADED
L2 0 SEA SSS SAM L1

FILE 'STNGUIDE' ENTERED AT 15:27:56 ON 04 JAN 2007

FILE 'HCAPLUS' ENTERED AT 15:28:00 ON 04 JAN 2007
E US2004-500156/APPS
L3 1 SEA ABB=ON PLU=ON US2004-500156/AP
D SCAN

FILE 'STNGUIDE' ENTERED AT 15:28:27 ON 04 JAN 2007

FILE 'REGISTRY' ENTERED AT 15:34:28 ON 04 JAN 2007
L4 STRUCTURE UPLOADED
D QUE L4
L5 0 SEA SSS SAM L4

FILE 'STNGUIDE' ENTERED AT 15:34:48 ON 04 JAN 2007

FILE 'REGISTRY' ENTERED AT 15:36:23 ON 04 JAN 2007
L6 STRUCTURE UPLOADED
L7 13 SEA SSS SAM L6
D QUE L6
L8 232 SEA SSS FUL L6
SAVE L8 SHIOA156/A TEMP

FILE 'HCAPLUS' ENTERED AT 15:37:25 ON 04 JAN 2007
SEL RN L3

FILE 'REGISTRY' ENTERED AT 15:37:49 ON 04 JAN 2007

FILE 'HCAPLUS' ENTERED AT 15:38:03 ON 04 JAN 2007

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L9            19 SEA ABB=ON  PLU=ON  L8
L10           19 SEA ABB=ON  PLU=ON  (L9 OR L3)
L11           17 SEA ABB=ON  PLU=ON  L8 (L)(PROC OR PREP OR RACT)/RL
L12            4 SEA ABB=ON  PLU=ON  L8 (L)(THU OR PKT OR PAC OR BAC OR DMA)/RL

                 E ALZHEIMER/CT
                 E E9+ALL
L13        24506 SEA ABB=ON  PLU=ON  "ALZHEIMER'S DISEASE"+OLD/CT
L14        42816 SEA ABB=ON  PLU=ON  ALZHEIMER?
                 E ALZHEIMER/CT
                 E E6+ALL
L15            2 SEA ABB=ON  PLU=ON  L9 AND (L13 OR L14)
L*** DEL   42833 S L9-L15
L16           19 SEA ABB=ON  PLU=ON  (L9 OR L10 OR L11 OR L12 OR L15)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAOLD, DRUGU, WPIX' ENTERED AT 15:41:01 ON
     04 JAN 2007
L17            1 SEA ABB=ON  PLU=ON  L8

     FILE 'MEDLINE, EMBASE, BIOSIS, CAOLD, DRUGU' ENTERED AT 15:41:16 ON 04
     JAN 2007
L18            1 SEA ABB=ON  PLU=ON  L8

     FILE 'BEILSTEIN' ENTERED AT 15:41:36 ON 04 JAN 2007
L19           28 SEA SSS FUL L6
L20           14 SEA ABB=ON  PLU=ON  L19 NOT L8
L21           14 SEA ABB=ON  PLU=ON  L20 AND BABSAN/FA
                 SEL BABSAN L21

     FILE 'BABS' ENTERED AT 15:42:13 ON 04 JAN 2007
L22            4 SEA ABB=ON  PLU=ON  (6011390/BABSAN OR 5684602/BABSAN OR
                 6069641/BABSAN OR 6254929/BABSAN)

     FILE 'BEILSTEIN' ENTERED AT 15:42:51 ON 04 JAN 2007
L23           10 SEA ABB=ON  PLU=ON  L21 AND 6011390/BABSAN
L24            2 SEA ABB=ON  PLU=ON  L21 AND 5684602/BABSAN
L25            1 SEA ABB=ON  PLU=ON  L21 AND 6069641/BABSAN
L26            1 SEA ABB=ON  PLU=ON  L21 AND 6254929/BABSAN

     FILE 'MARPAT' ENTERED AT 15:43:48 ON 04 JAN 2007
L27           15 SEA SSS SAM L6

     FILE 'WPIX' ENTERED AT 15:44:06 ON 04 JAN 2007
L28            1 SEA SSS FUL L6
L29            1 SEA ABB=ON  PLU=ON  L28/DCR
                 SEL SDCN L28
                 EDIT E5 SDCN DCN
L30            1 SEA ABB=ON  PLU=ON  RAGNST/DCN
                 SEL DCSE L28
                 EDIT E6 DCSE DCRE
L31            0 SEA ABB=ON  PLU=ON  1018507-0-0-0/DCRE
L32            1 SEA ABB=ON  PLU=ON  (L29 OR L30 OR L31)

     FILE 'WPIX' ENTERED AT 15:45:59 ON 04 JAN 2007

     FILE 'HCAPLUS' ENTERED AT 15:46:02 ON 04 JAN 2007
                 E YASUKOUCHI T/AU
L33           15 SEA ABB=ON  PLU=ON  ("YASUKOUCHI T"/AU OR "YASUKOUCHI TAKANORI"
                 /AU)
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                E ITO M/AU
L34          1365 SEA ABB=ON  PLU=ON  ("ITO M"/AU OR "ITO M B"/AU OR "ITO M
                F"/AU OR "ITO M M"/AU OR "ITO MASAYUKI"/AU)
                E KUBOTA H/AU
L35           285 SEA ABB=ON  PLU=ON  ("KUBOTA H"/AU OR "KUBOTA H G"/AU OR
                "KUBOTA H Y"/AU OR "KUBOTA HIDEKI"/AU)
                E MIYAUCHI S/AU
L36            52 SEA ABB=ON  PLU=ON  ("MIYAUCHI S"/AU OR "MIYAUCHI SATORU"/AU)
                E SAITO M/AU
L37          1040 SEA ABB=ON  PLU=ON  ("SAITO M"/AU OR "SAITO M A"/AU OR "SAITO
                M AKOTO"/AU OR "SAITO M E"/AU OR "SAITO M GIITI"/AU OR "SAITO
                M H"/AU OR "SAITO M I"/AU OR "SAITO M L"/AU OR "SAITO M T"/AU
                OR "SAITO MASANORI"/AU)
L38             0 SEA ABB=ON  PLU=ON  L33 AND L34 AND L35 AND L36 AND L37
L39            11 SEA ABB=ON  PLU=ON  (L33 AND (L34 OR L35 OR L36 OR L37)) OR
                (L34 AND (L35 OR L36 OR L37)) OR (L35 AND (L36 OR L37)) OR
                (L36 AND L37)
L40            11 SEA ABB=ON  PLU=ON  (L39 OR L3)
L41             5 SEA ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR L37) AND
                (BETA(2A)AMYLOID?)
L42            13 SEA ABB=ON  PLU=ON  (L39 OR L40 OR L41)

     FILE 'CAOLD' ENTERED AT 15:50:38 ON 04 JAN 2007
L43             1 SEA ABB=ON  PLU=ON  L8

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, DRUGU, WPIX' ENTERED AT 15:51:01
     ON 04 JAN 2007
L44           169 SEA ABB=ON  PLU=ON  YASUKOUCHI T?/AU
L45         43708 SEA ABB=ON  PLU=ON  ITO M?/AU
L46          7285 SEA ABB=ON  PLU=ON  KUBOTA H?/AU
L47          1944 SEA ABB=ON  PLU=ON  MIYAUCHI S?/AU
L48         33397 SEA ABB=ON  PLU=ON  SAITO M?/AU
L49             1 SEA ABB=ON  PLU=ON  L44 AND L45 AND L46 AND L47 AND L48
L50           178 SEA ABB=ON  PLU=ON  (L44 AND (L45 OR L46 OR L47 OR L48)) OR
                (L45 AND (L46 OR L47 OR L48)) OR (L46 AND (L47 OR L48)) OR
                (L47 AND L48)
L51            98 DUP REM L50 (80 DUPLICATES REMOVED)
                      ANSWERS '1-46' FROM FILE HCAPLUS
                      ANSWERS '47-50' FROM FILE MEDLINE
                      ANSWERS '51-53' FROM FILE EMBASE
                      ANSWERS '54-70' FROM FILE BIOSIS
                      ANSWERS '71-98' FROM FILE WPIX
L52             3 SEA ABB=ON  PLU=ON  L51 AND (BETA(2A) AMYLOID?)
L53            52 SEA ABB=ON  PLU=ON  (L44 OR L45 OR L46 OR L47 OR L48) AND
                (BETA(2A) AMYLOID?)
L54            23 DUP REM L53 (29 DUPLICATES REMOVED)
                      ANSWERS '1-12' FROM FILE HCAPLUS
                      ANSWERS '13-15' FROM FILE MEDLINE
                      ANSWERS '16-18' FROM FILE EMBASE
                      ANSWERS '19-23' FROM FILE BIOSIS
L55            24 SEA ABB=ON  PLU=ON  (L49 OR L52 OR L54)

     FILE 'STNGUIDE' ENTERED AT 15:53:58 ON 04 JAN 2007
                D QUE L42

     FILE 'HCAPLUS' ENTERED AT 16:01:37 ON 04 JAN 2007
L56            11 SEA ABB=ON  PLU=ON  L42 NOT L16

     FILE 'STNGUIDE' ENTERED AT 16:01:59 ON 04 JAN 2007
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                D QUE L55
                D QUE L56

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 16:02:07 ON 04
     JAN 2007
L57           31 DUP REM L55 L56 (4 DUPLICATES REMOVED)
                     ANSWERS '1-20' FROM FILE HCAPLUS
                     ANSWERS '21-23' FROM FILE MEDLINE
                     ANSWERS '24-26' FROM FILE EMBASE
                     ANSWERS '27-31' FROM FILE BIOSIS
                D IBIB ABS RETABLE L57 1-20
                D IBIB ABS L57 21-31

     FILE 'HCAPLUS' ENTERED AT 16:02:36 ON 04 JAN 2007
                D QUE L16
                D IBIB ABS HITIND HITSTR RETABLE L16 TOT

     FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU' ENTERED AT 16:03:12 ON 04 JAN 2007
                D QUE L18

     FILE 'CAOLD' ENTERED AT 16:03:21 ON 04 JAN 2007

     FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU' ENTERED AT 16:03:25 ON 04 JAN 2007

     FILE 'CAOLD' ENTERED AT 16:03:37 ON 04 JAN 2007
                D BIB L18 TOT

     FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU' ENTERED AT 16:03:37 ON 04 JAN 2007

     FILE 'WPIX' ENTERED AT 16:03:43 ON 04 JAN 2007
                D QUE L32
                D ALL ABEQ TECH L32 TOT

     FILE 'BABS' ENTERED AT 16:03:57 ON 04 JAN 2007
                D QUE L22
                D IBIB ABS L22 TOT

     FILE 'BEILSTEIN' ENTERED AT 16:04:10 ON 04 JAN 2007
                D QUE L23
                D QUE L24
                D QUE L25
                D QUE L26
                D IDE ALLREF L23 1
                D IDE ALLREF L24 1
                D IDE ALLREF L25 1
                D IDE ALLREF L26 1

     FILE 'CAOLD' ENTERED AT 16:04:42 ON 04 JAN 2007
                D QUE L43
                D BIB L43 TOT

     FILE 'CASREACT' ENTERED AT 16:09:59 ON 04 JAN 2007
L58             0 SEA SSS SAM L6 (     0 REACTIONS)
L59             7 SEA SSS FUL L6 (    31 REACTIONS)
                D QUE L59
                D IBIB ABS CRD L59 TOT


     FILE HOME
```

FILE REGISTRY
Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 3 JAN 2007 HIGHEST RN 916687-76-8
DICTIONARY FILE UPDATES: 3 JAN 2007 HIGHEST RN 916687-76-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 2, 2007 (20070102/UP).

FILE HCAPLUS

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FILE COVERS 1907 - 4 Jan 2007 VOL 146 ISS 2
FILE LAST UPDATED: 3 Jan 2007 (20070103/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE MEDLINE
FILE LAST UPDATED: 3 Jan 2007 (20070103/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE

FILE COVERS 1974 TO 4 Jan 2007 (20070104/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 3 January 2007 (20070103/ED)

FILE CAOLD
FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

FILE DRUGU
FILE LAST UPDATED: 4 JAN 2007 <20070104/UP>
>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<
>>> THESAURUS AVAILABLE IN /CT <<<

FILE WPIX
FILE LAST UPDATED: 2 JAN 2007 <20070102/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200701 <200701/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://scientific.thomson.com/support/patents/coverage/latestupdates/

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX
PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

FILE BEILSTEIN
FILE LAST UPDATED ON JUNE 16, 2006

FILE COVERS 1771 TO 2006.
FILE CONTAINS 9,606,495 SUBSTANCES

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For mo detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

****
* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE *
* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE *
* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. *
* FOR PRICE INFORMATION SEE HELP COST *
****

NEW
* ***PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.***
* ***NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.***

FILE BABS
FILE LAST UPDATED: 25 SEP 2006 <20060925/UP>
FILE COVERS 1980 TO DATE.

FILE MARPAT
FILE CONTENT: 1961-PRESENT VOL 146 ISS 1 (20061229/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 7138540 21 NOV 2006
DE 102005018025 02 NOV 2006
EP 1721898 15 NOV 2006
JP 2006310097 09 NOV 2006
WO 2006126581 30 NOV 2006
GB 2425654 01 NOV 2006

FR 2885527 17 NOV 2006
RU 2287007 10 NOV 2006
CA 2546348 11 NOV 2006

Expanded G-group definition display now available.

FILE CASREACT
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FILE CONTENT:1840 - 31 Dec 2006 VOL 146 ISS 1

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* CASREACT now has more than 10 million reactions *
*
****

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.